

## Table of Contents

1. INTRODUCTION .....	1
1.1 Purpose.....	1
1.2 Regulatory Information.....	1
2. SYSTEM SPECIFICATION .....	3
3. LG-C3600 TECHNICAL BRIEF.....	4
3.1 LG-C3600 Block Diagram .....	4
3.2 RF Part.....	5
3.3 BaseBand Transmit Section.....	6
3.4 BaseBand Receive Section.....	6
4. LG-C3600 TROUBLE SHOOTING .....	7
4.1 RF Components.....	7
4.2 RX Trouble .....	8
4.2.1 Check ANT Feedback Points .....	8
4.2.2 Check Regulator Circuit .....	8
4.2.3 Check VCTCXO Circuit.....	9
4.2.4 Check Antenna Switch & Mobile Switch.....	10
4.2.5 Check SAW Filter.....	11
4.2.6 Checking Receive IQ .....	12
4.3 TX Trouble .....	13
4.3.1 Check LDO Circuit .....	13
4.3.2 Check VCTCXO Circuit.....	13
4.3.3 Check Transmit IQ .....	13
4.3.4 Check PAM Control Signal.....	14
4.3.5 Check Antenna Switch and Mobile Switch .....	15
4.4 Power On Trouble .....	15
4.5 Charging Trouble .....	17
4.6 LCD Trouble.....	19
4.6.1 LCD Blue Screen .....	19
4.6.2 LCD Blank Screen or Abnormal Screen.....	19
4.7 Camera Trouble .....	20
4.8 Color LED Trouble .....	21
4.9 KEYPAD Backlight LEDS Trouble .....	22
4.10 SIM Trouble.....	23
4.11 Ear Jack Trouble .....	24
4.12 Speaker/Receiver Trouble.....	26
5. DOWNLOAD AND CALIBRATION .....	28
6. CIRCUIT DIAGRAM & PCB LAYOUT.....	29
7. EXPLODED VIEW & REPLACEMENT PART LIST.....	36

# **1. INTRODUCTION**

## **1.1 Purpose**

This manual provides the information necessary to repair, calibration, description and download the features of LG-C3600.

## **1.2 Regulatory Information**

### **A. Security**

Toll fraud, the unauthorized use of telecommunications system by an unauthorized part (for example, persons other than your company's employees, agents, subcontractors, or person working on your company's behalf) can result in substantial additional charges for your telecommunications services. System users are responsible for the security of own system. There may be risks of toll fraud associated with your telecommunications system. System users are responsible for programming and configuring the equipment to prevent unauthorized use. The manufacturer does not warrant that this product is immune from the above case but will prevent unauthorized use of common – carrier telecommunication service of facilities accessed through or connected to it. The manufacturer will not be responsible for any charges that are resulted from such unauthorized use.

### **B. Changes in Service**

A local telephone company may make changes in its communications facilities or procedure. If these changes could reasonably be expected to affect the use of this phone or compatibility with the network, the telephone company is required to give advanced written notice to the user, allowing the user to take appropriate steps to maintain telephone service.

### **C. Maintenance Limitations**

Maintenance limitations on this model must be performed only by the manufacturer or its authorized agent. Therefore, note that unauthorized alternations or repair may affect the regulatory status of the system and may void any remaining warranty.

### **D. Notice of Radiated Emissions**

This model complies with rules regarding radiation and radio frequency emission as defined by local regulatory agencies. In accordance with these agencies, you may be required to provide information such as the following to the end user.

### **E. Interference and Attenuation**

Phone may interfere with sensitive laboratory equipment, medical equipment, etc. Interference from unsuppressed engines or electric motors may cause problems.

### **F. Electrostatic Sensitive Devices**

### ATTENTION

Boards, which contain Electrostatic Sensitive Device (ESD), are indicated by the sign.

Following is  ion is ESD handling:

- Service personnel should ground themselves by using a wrist strap when exchange system boards.
- When repairs are made to a system board, they should spread the floor with anti-static mat which is also grounded.
- Use a suitable, grounded soldering iron.
- Keep sensitive parts in these protective packages until these are used.
- When returning system boards or parts like EEPROM to the factory, use the protective package as described.

## 2. SYSTEM SPECIFICATION

Item	Target Specification
Form Factor	Folder Type
Standard Battery	(1000mAh , Li-ion) Size: 34(W)×50(H)×5.5(T) mm Weight: 25g
Size	88 X 44 X 23mm
Weight	88.35 Gram(with standard battery)
Standby Current	Below 4.5mA under the least current consumption (e.g. Paging Period = 9)
Talk Time	Up to 3 hrs (GSM Tx Lev:5)
Standby Time	Up to 200 hrs : Paging Period 9, RSSI 85dBm
Antenna	Internal
LCD	Main LCD: CSTN 128×160 Pixels 65K Color Sub LCD: CSTN 96×64 Pixels 65K Color
Back Light	Blue LED
PC Sync	Yes
Indicator LED	None
Vibrator	Yes (Cylinder Type)
Buzzer	Yes
C-MIC	Yes
Receiver	Yes
Earphone Jack	Yes (Stereo)
SIM Socket	Yes (SIM Block Type)
Volume Key	Yes
Voice Key	Yes
MP3/AAC	Yes
MIDI	64 MIDI
I/O Connector	24Pin
Basic Accessory	Travel Adaptor Standard Battery (1000mAh , Li-ion) Ear-mic Data Cable

## 3. LG-C3600 TECHNICAL BRIEF

### 3.1 LG-C3600 Block Diagram

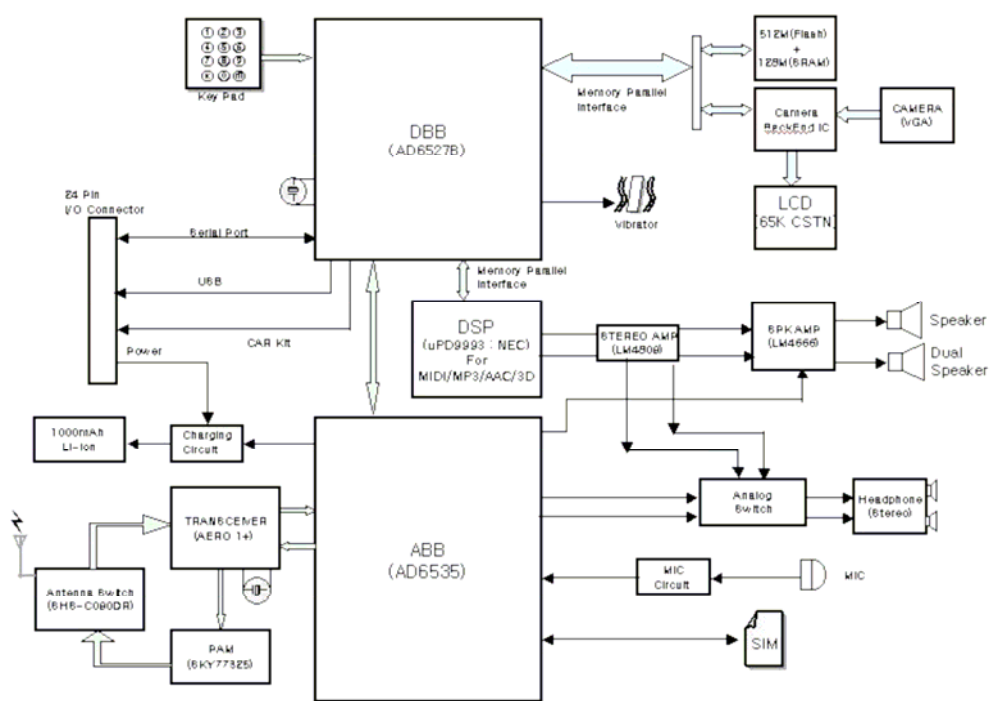


Figure 3-1 LG-C3600 top level block diagram

The Figure 3-1 shows the top level block diagram of LG-C3600, it contains RF and BB part.

The following list is the detailed:

1. AD6527B : ADI digital baseband chipset
2. AD6537B : ADI analog baseband and power supply chipset
3. SI4205 : RF transmitter chipset
4. NEC9993 : NEC MP3 and Midi chipset
5. RD38F4455LLZDQ0 : 256Mb + 256Mb intel Flash memory chipset
6. CL761S : Camera module
7. Others:
  - A. 24 main key, 3 MP3 play key and 2 side key.
  - B. 128 x 160 65K CSTN –LCD module
  - C. Vibrator
  - D. Mic
  - E. Speaker and receiver
  - F. Ear-jack
  - G. Sim socket
  - H. Battery connector

### 3.2 RF Part

The RF parts consist of a transmitter part, a receiver part, a frequency synthesizer part, a voltage supply part, and a VCTCXO part. The Aero transceiver is one chip solution which supports dual and triple-band GSM/GPRS wireless communications. This device integrated a receiver based on a low IF(100KHz) architecture and a transmitter based on a modulation loop architecture which contains a complete dual band transceiver with built in VCOs. The transceiver employed a 3 wire serial interface to allow an external system controller to write the control registers for dividers, receive path gain, power down setting, and other controls.

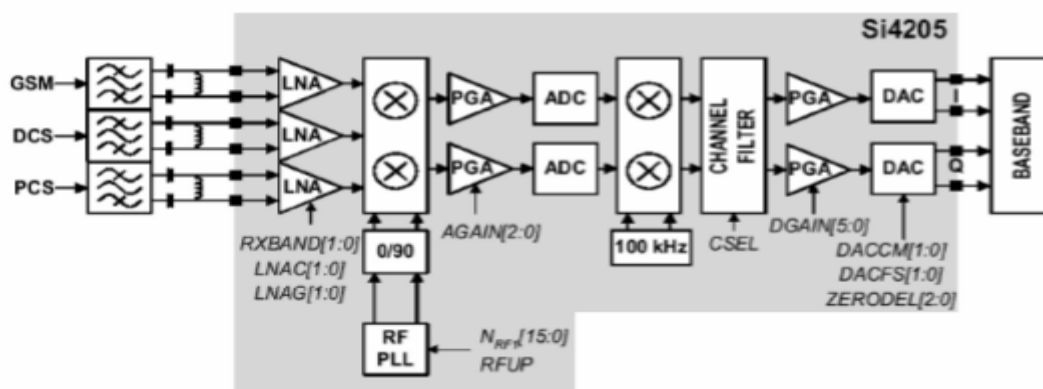


Figure 3-2 Receiver Block Diagram

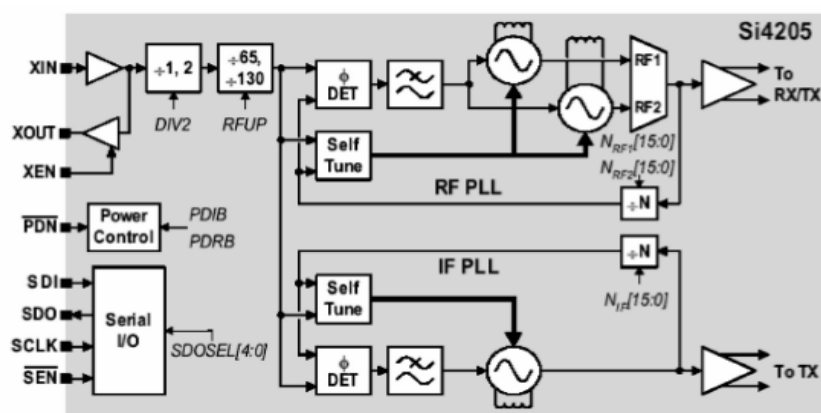


Figure 3-3 Frequency Synthesizer Block Diagram

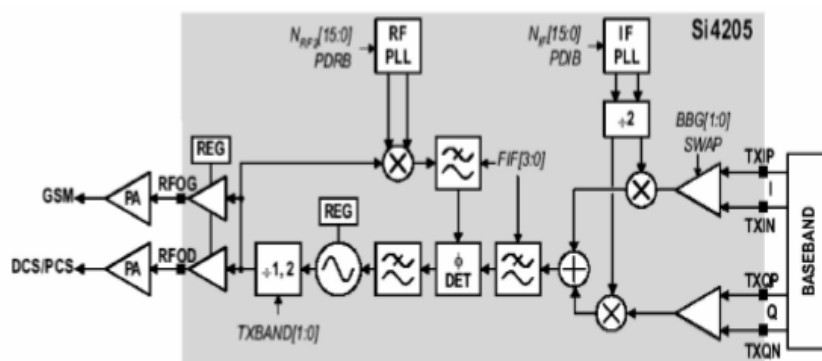


Figure 3-4 Transmitter Block Diagram

## 3.3 BaseBand Transmit Section

- i. The AD6537B transmit section is designed to support GMSK for both single slot and multislot applications.
- ii. The AD6537B transmit section consists of a digital GMSK modulator, a matched pair of 10-bit DACs and a matched pair of reconstruction filter.

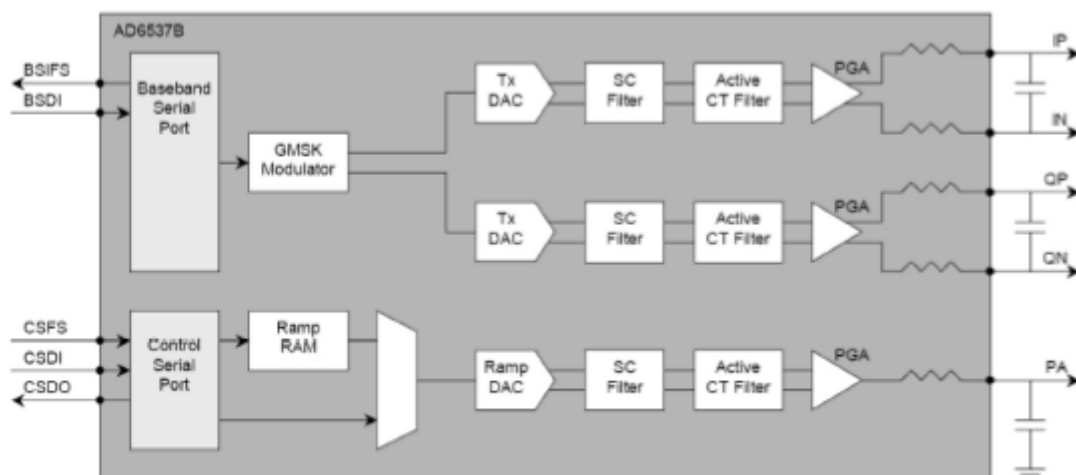


Figure 3-5 AD6537B BASEBAND TRANSMIT SECTION

## 3.4 BaseBand Receive Section

- i. This section consists of two identical ADC channels that process baseband in-phase(I) and quadrature(Q) signals.
- ii. Each channel consists a coarse switched capacitor Anti-alias filter, followed by a low pass digital filter.

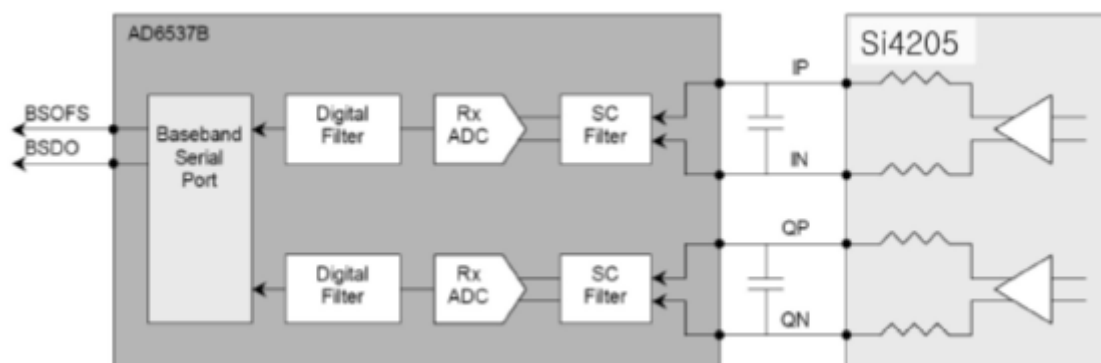


Figure 3-6 AD6537B BASEBAND RECEIVER SECTION

## 4. LG-C3600 TROUBLE SHOOTING

### 4.1 RF Components

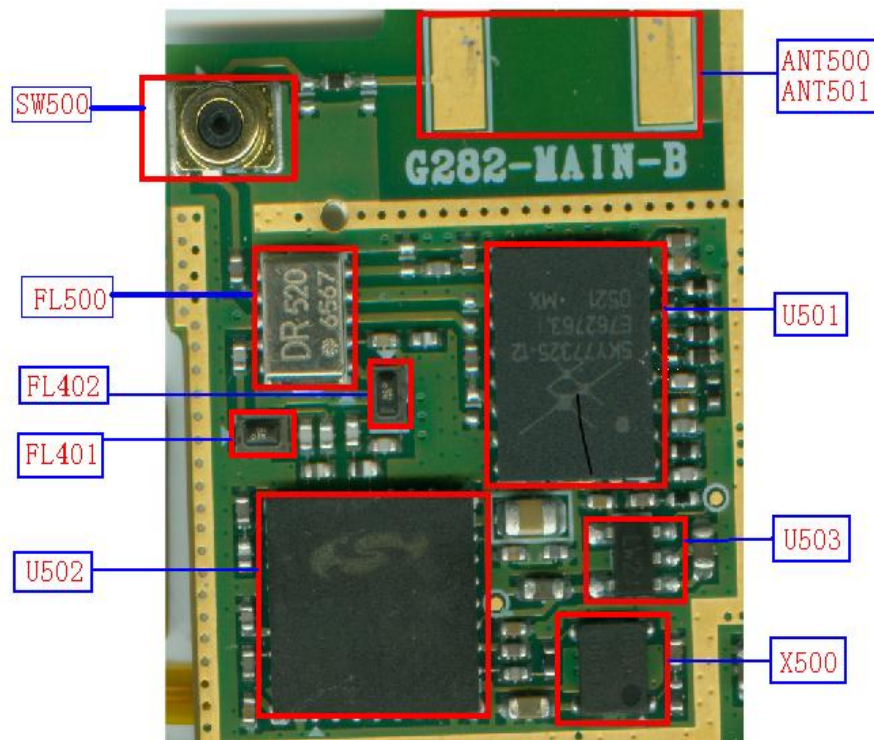


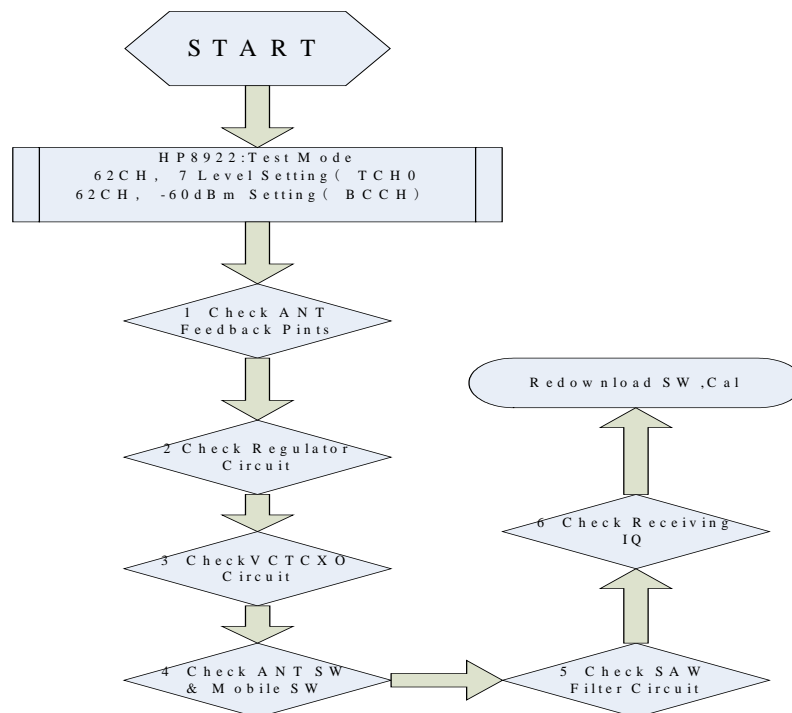
Figure 4-1 RF Components

Reference	Description	Reference	Description
SW500	Mobile S/W	U501	PAM
FL401	EGSM SAW Filter	FL500	ANT S/W
FL402	DCS SAW Filter	U503	LDO
U502	RF Main Chipset	ANT500	ANT Feedback Point
X500	XCTCXO	ANT501	

Table 4-1



### 4.2 RX Trouble



#### 4.2.1 Check ANT Feedback Points

See Figure 4-1. Check ANT500 and ANT501 Check Whether the ANT Good Contacting

#### 4.2.2 Check Regulator Circuit

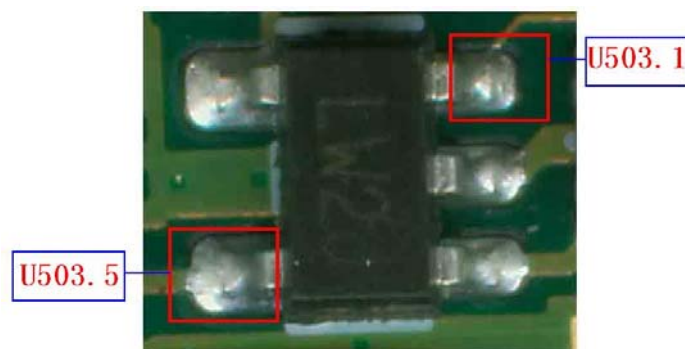
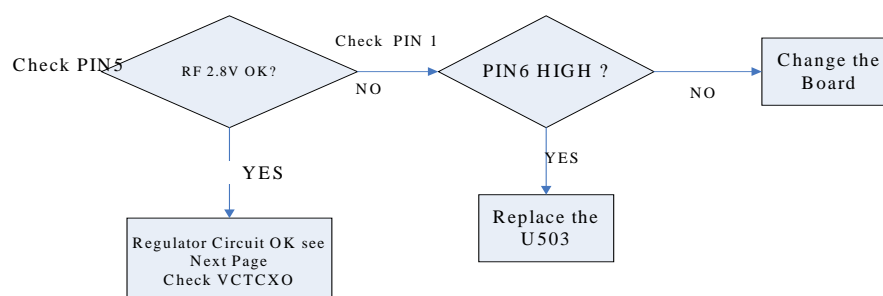
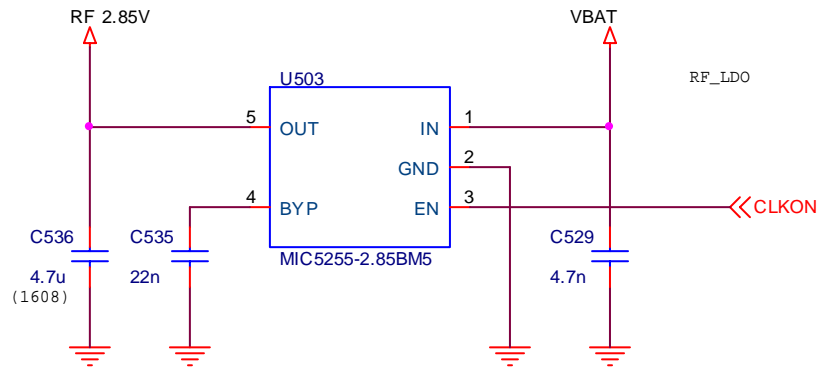


Figure 4-2 Regulator Circuit





4.2.3 Check VCTCXO Circuit

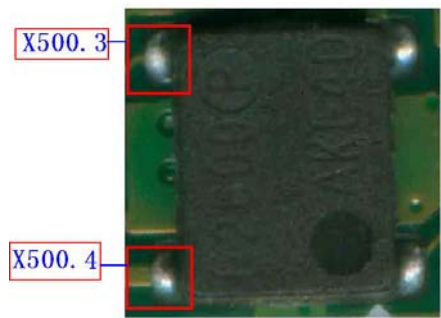
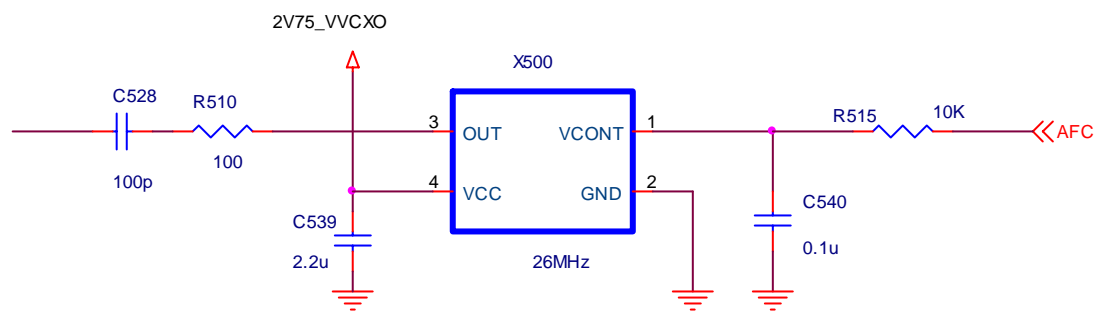
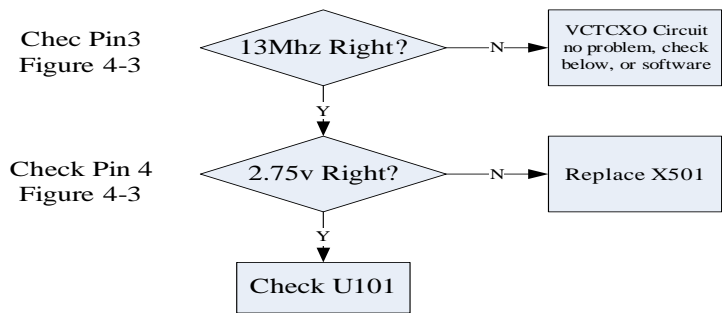


Figure 4-3 VCTCXO Circuit



### 4.2.4 Check Antenna Switch & Mobile Switch

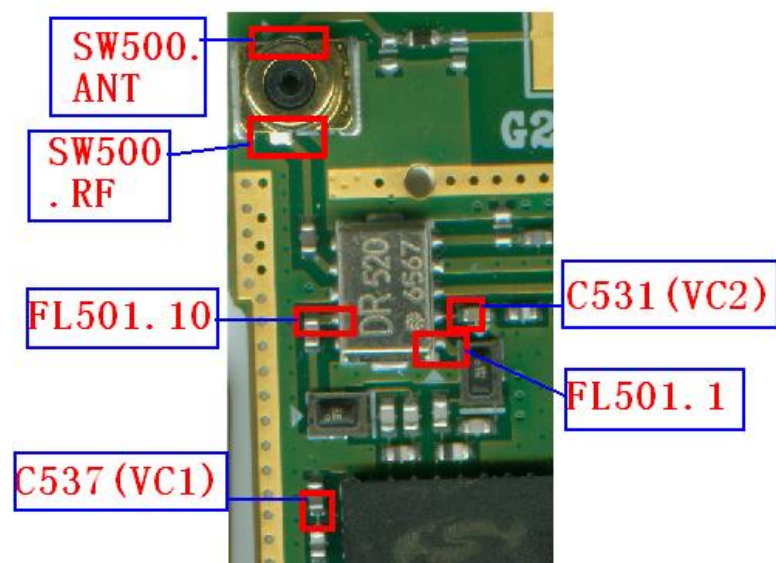
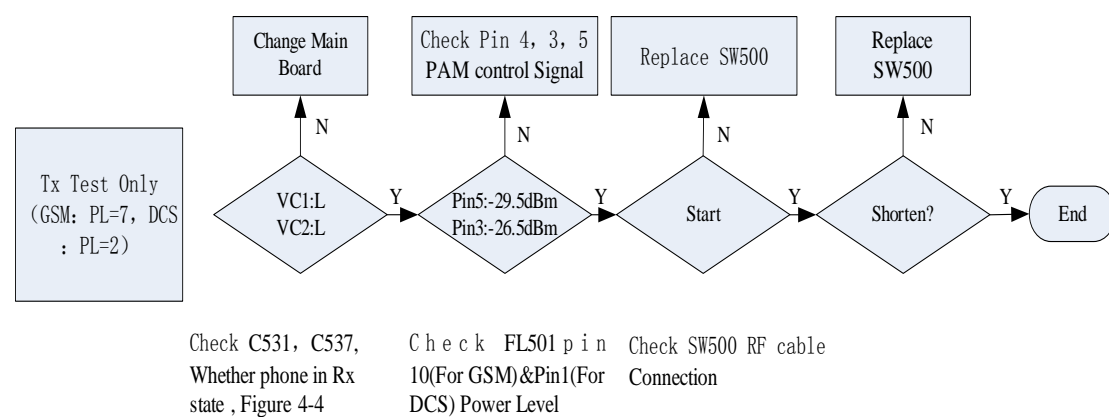


Figure 4-4 Antenna Switch & Mobile Switch



ANT SW	VC1	VC2
DCS TX	L	H
EGSM TX	H	L
EGSM,DCS RX	L	L

Table 4-2

## 4.2.5 Check SAW Filter

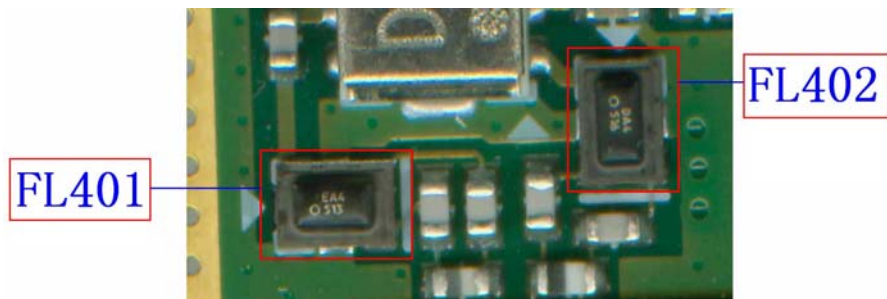
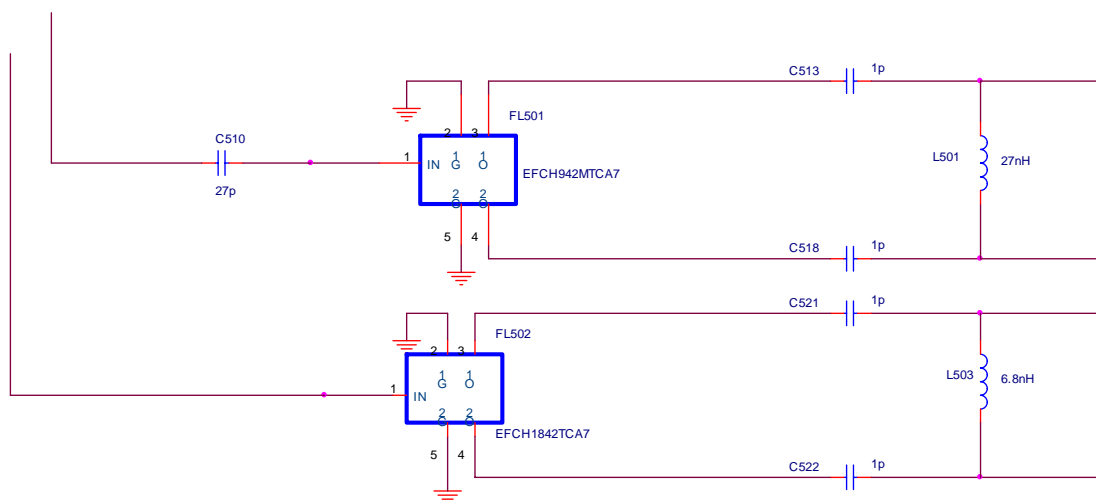


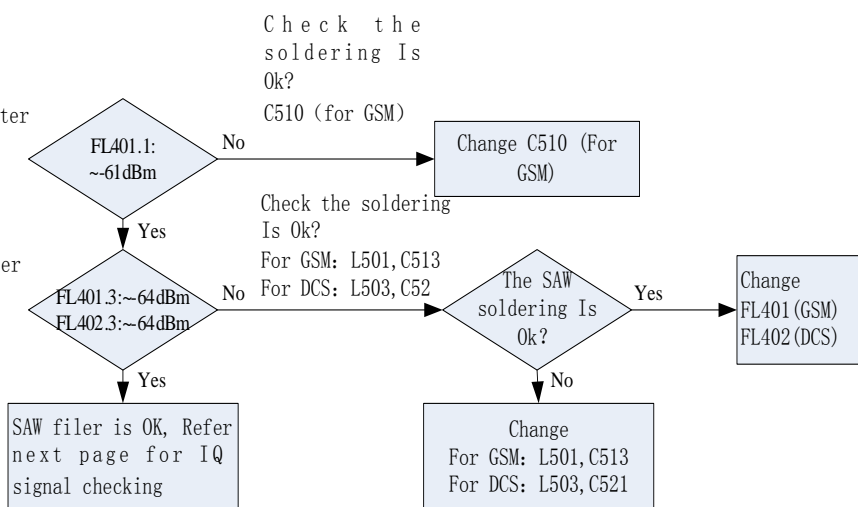
Figure 4-5



When do these two test, standalone mode should be applied

Check the SAW filter Input  
For GSM: FL401.3  
For DCS: FL402.3

Check the SAW filter Output  
For GSM: FL401.3  
For DCS: FL402.3



### 4.2.6 Checking Receive IQ



Figure 4-6

check C519, C526  
check if there is any  
major difference  
Refer to Figure4-6

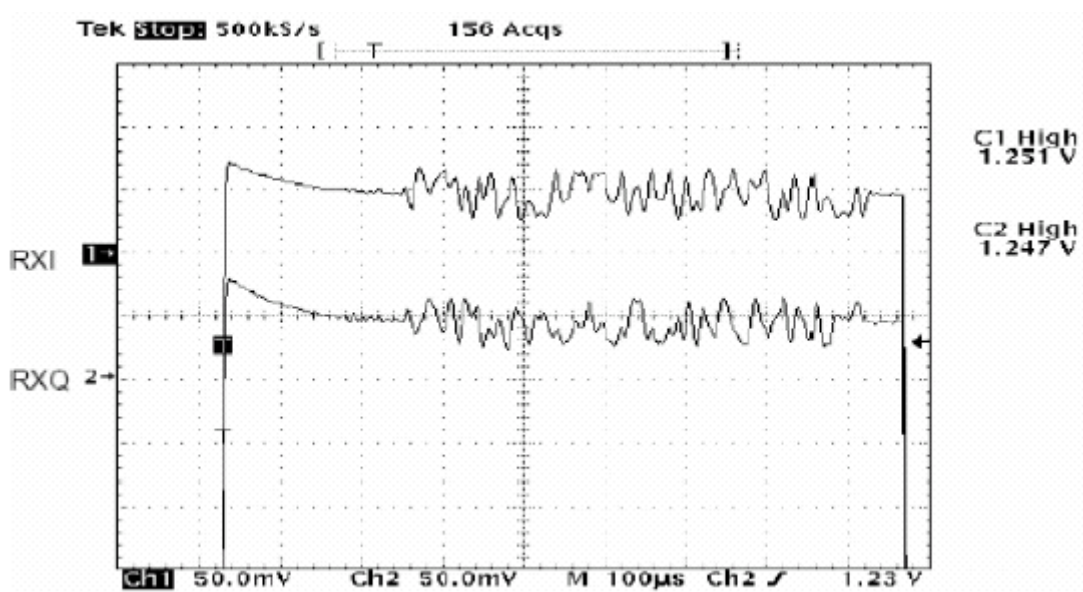
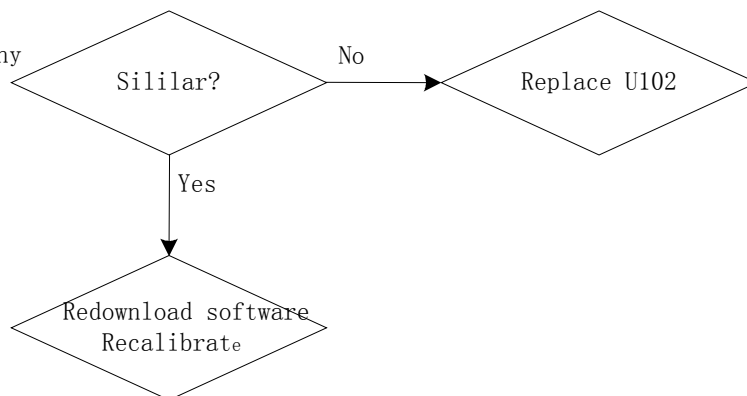
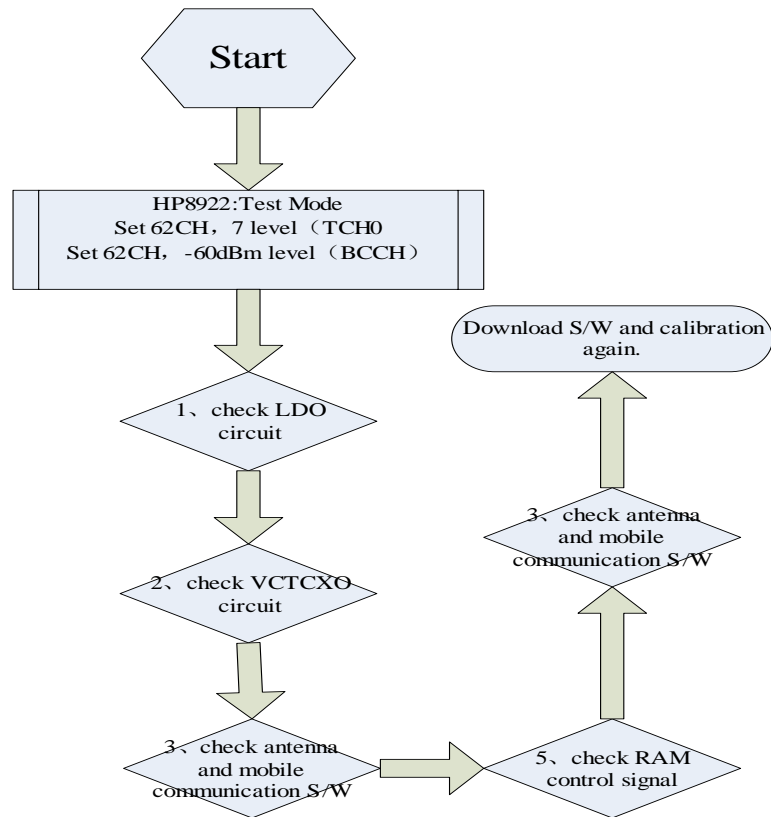


Figure 4-7

### 4.3 TX Trouble



#### 4.3.1 Check LDO Circuit

Detail on 4.2.1

#### 4.3.2 Check VCTCXO Circuit

Detail on 4.2.2

#### 4.3.3 Check Transmit IQ

Detail on 4.2.6

### 4.3.4 Check PAM Control Signal

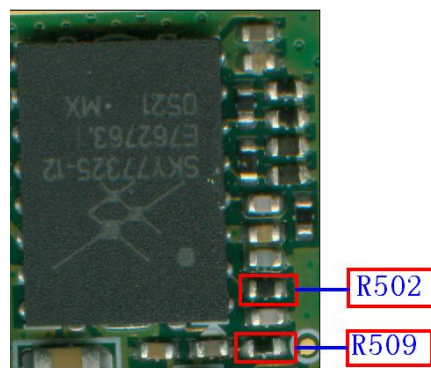
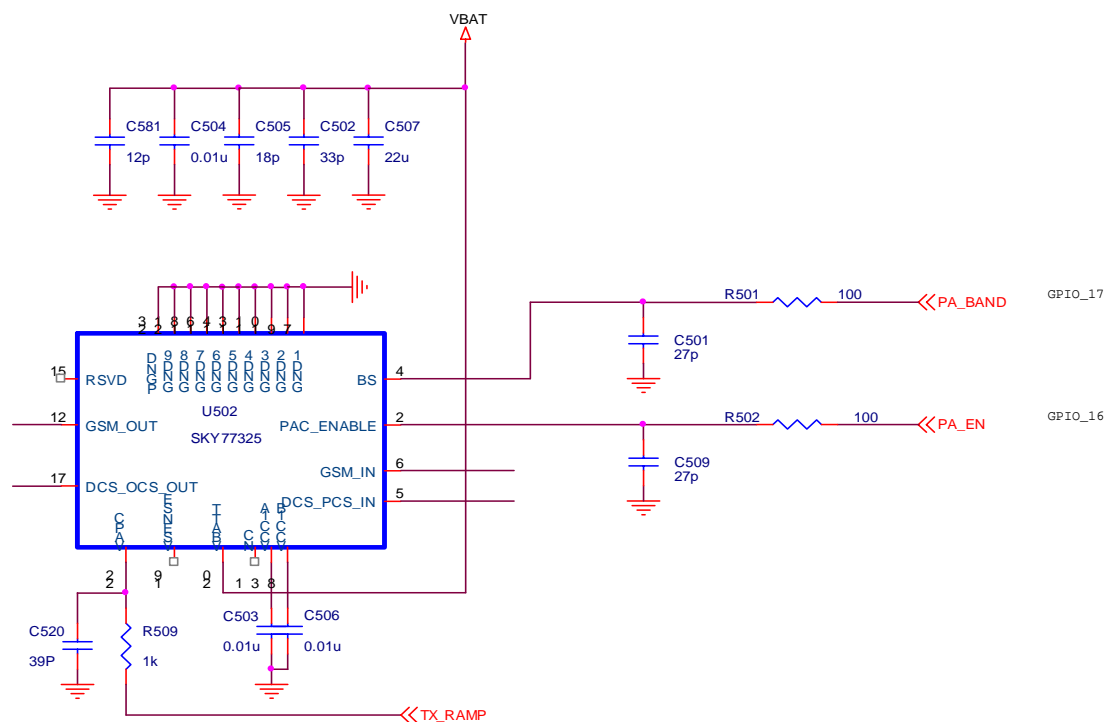
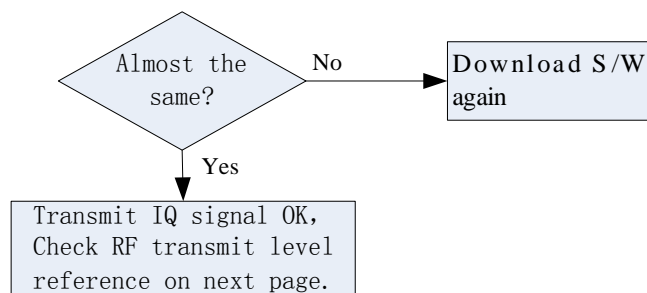


Figure 4-8



Check TX-RAMP and  
PA-EN  
Check the  
difference  
\*Reference Graph  
4-8



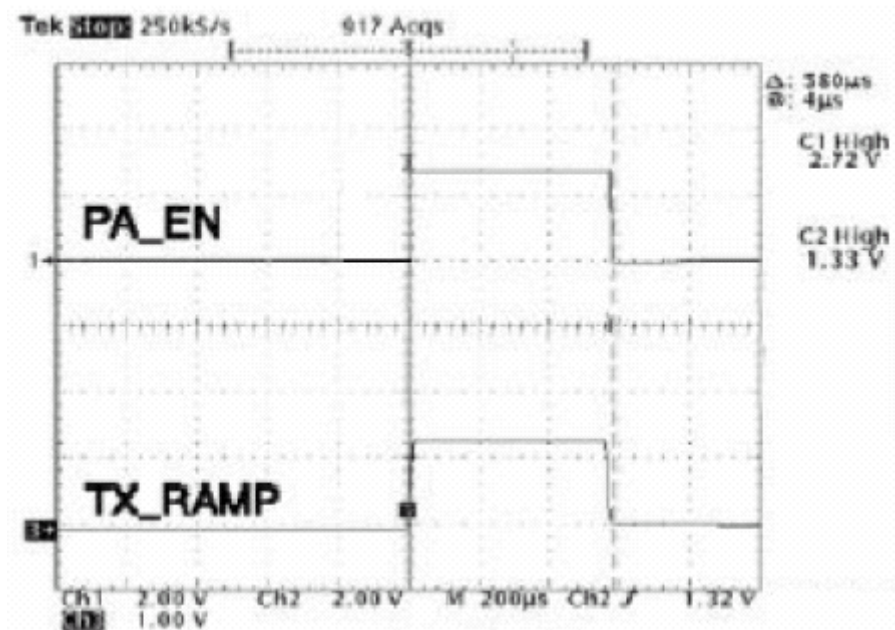


Figure 4-9

#### 4.3.5 Check Antenna Switch and Mobile Switch

Please refer to 4.2.4

#### 4.4 Power On Trouble

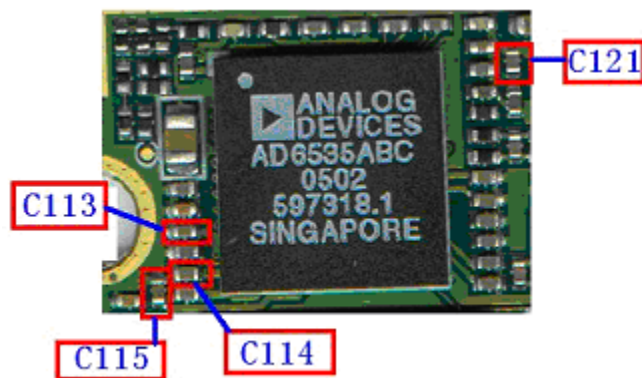
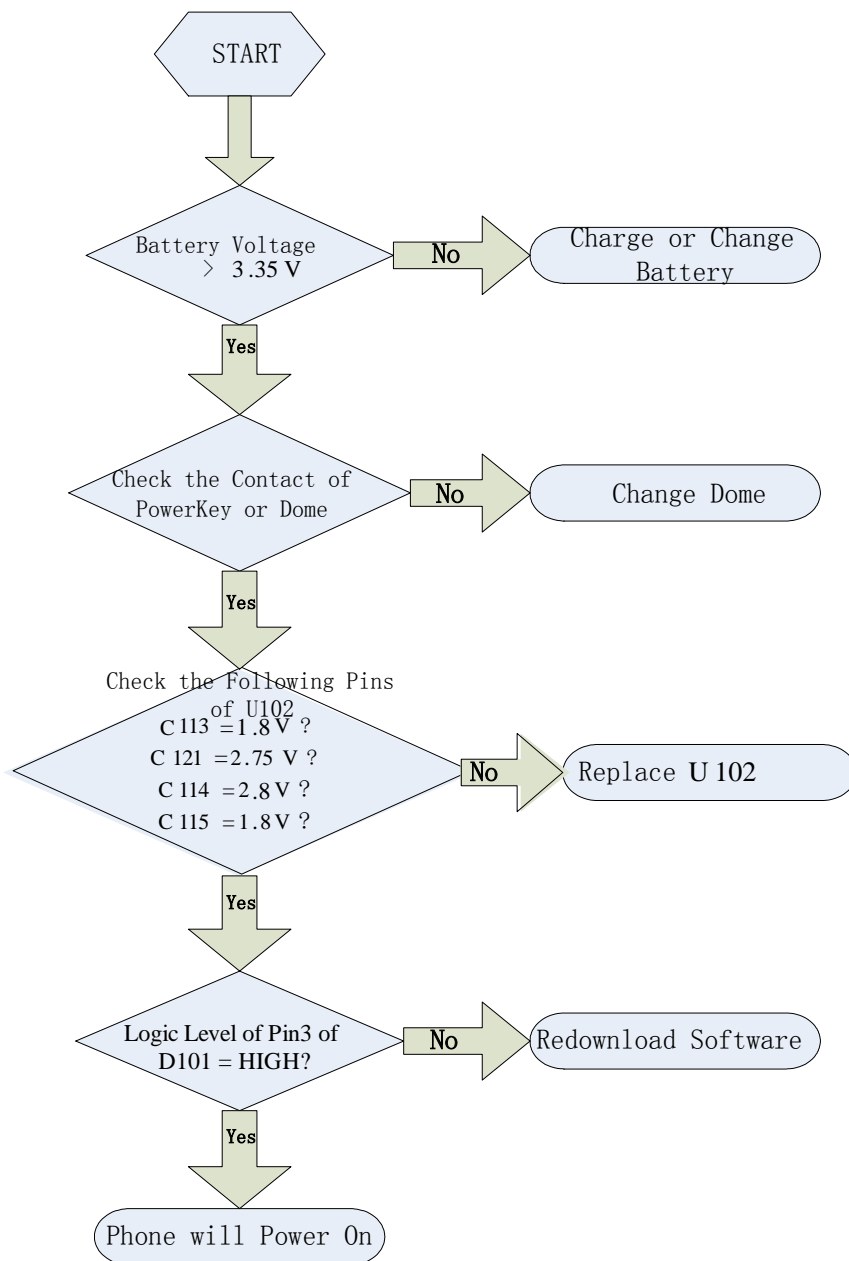


Figure 4-10





4.5 Charging Trouble

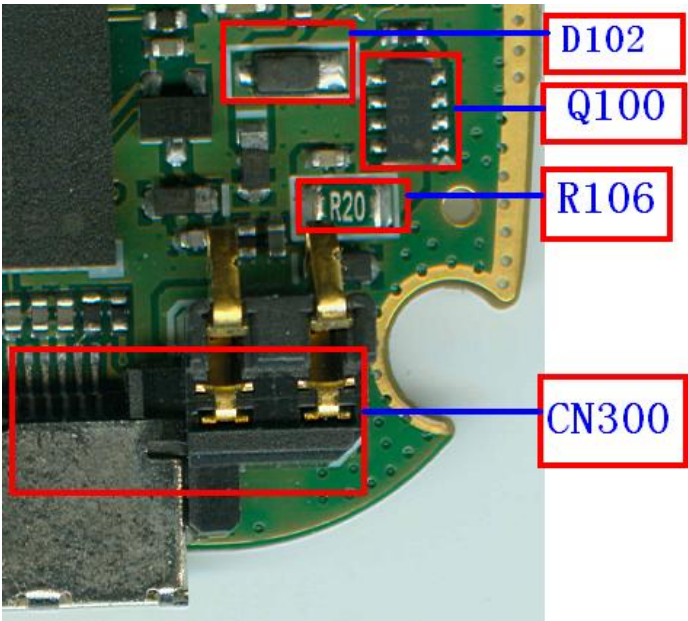
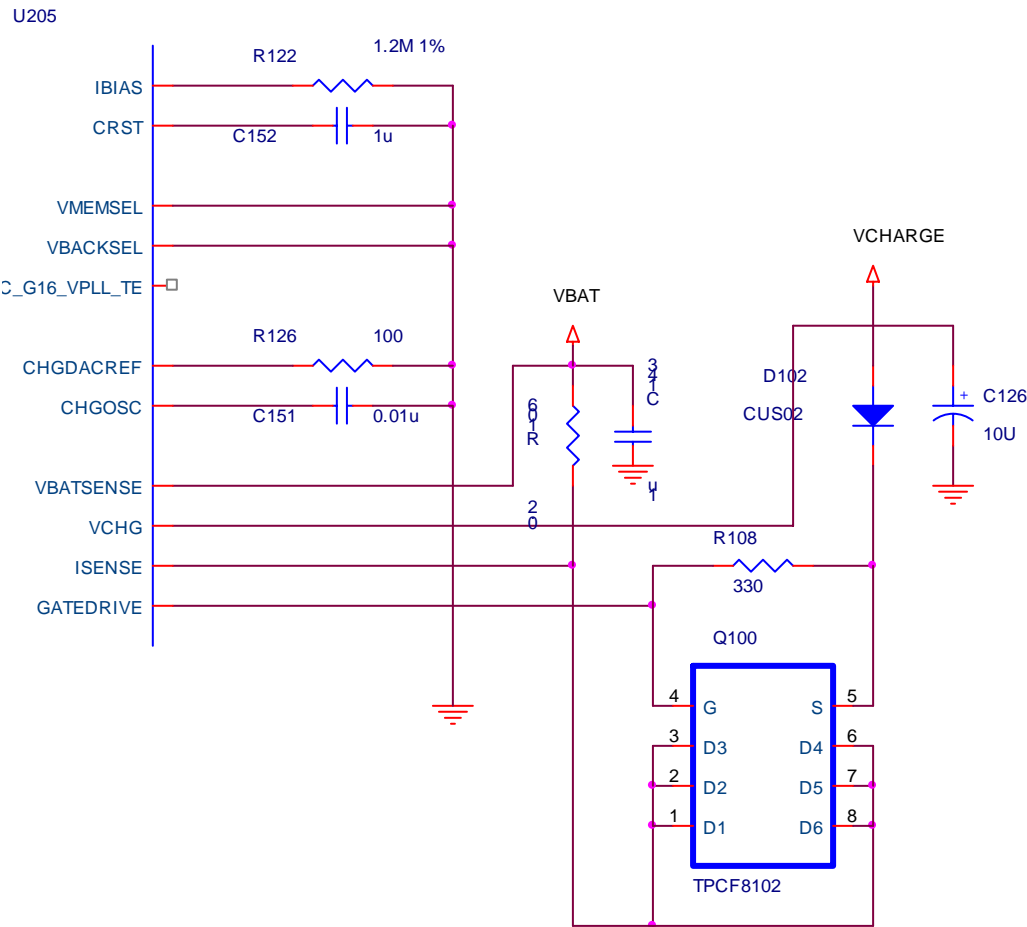
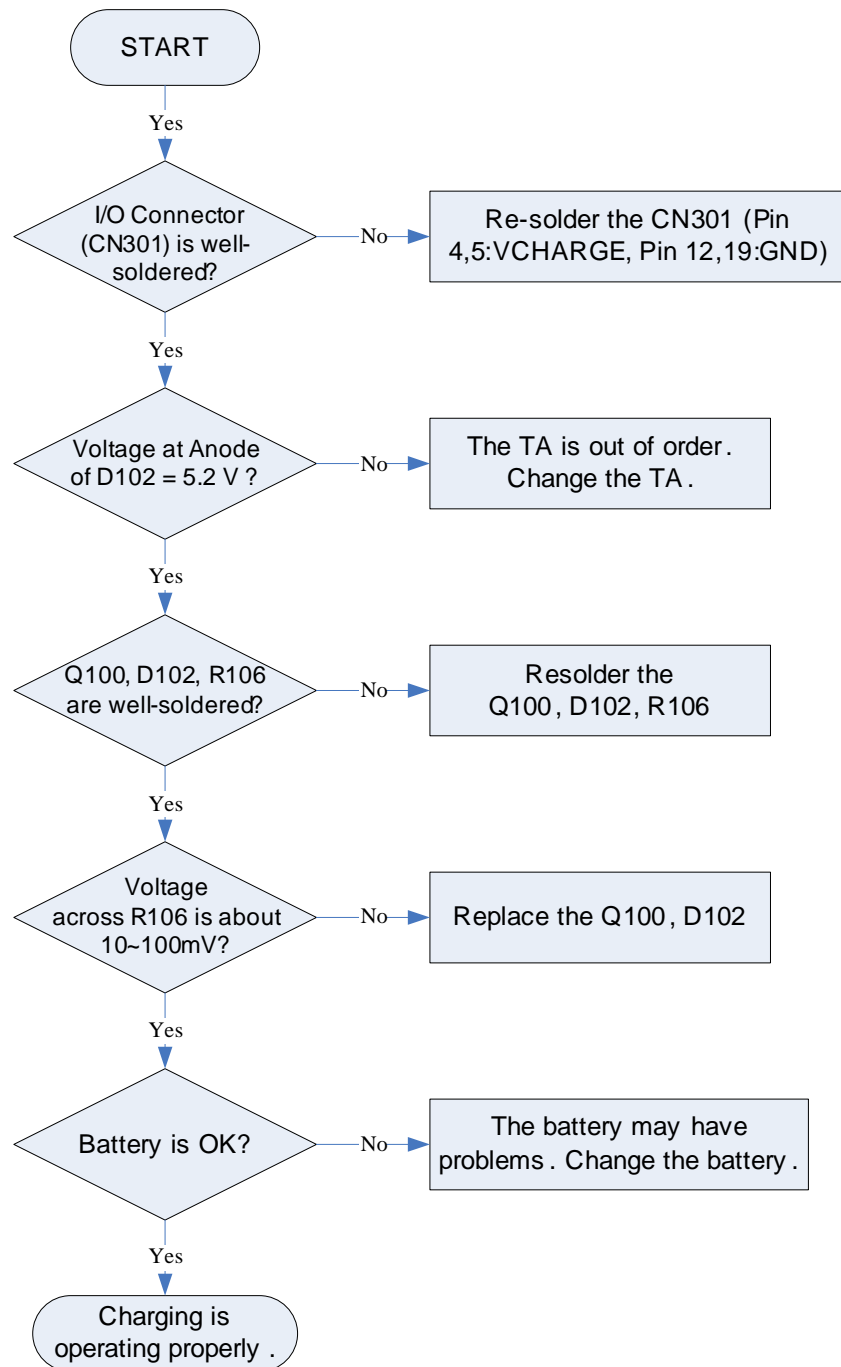


Figure 4-11





## 4.6 LCD Trouble

### 4.6.1 LCD Blue Screen

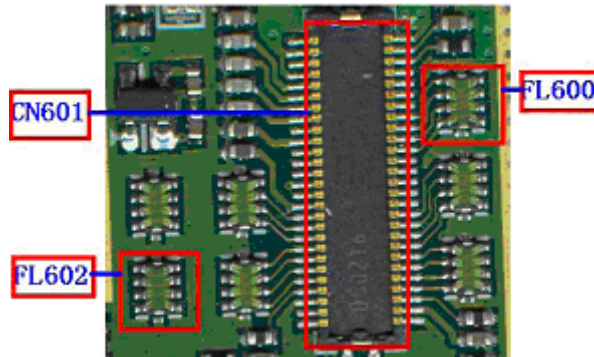
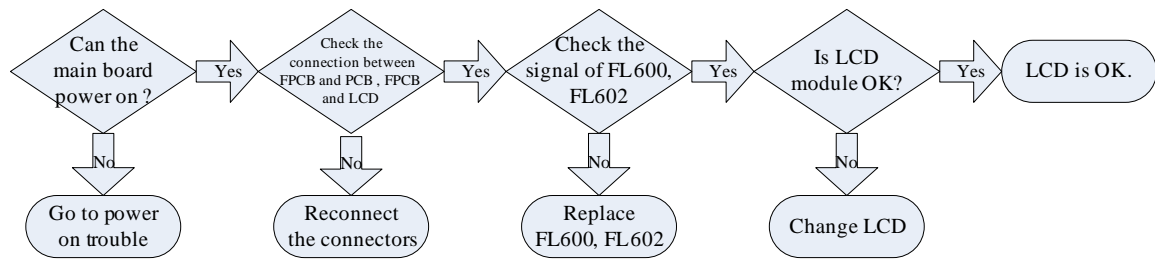


Figure 4-12



### 4.6.2 LCD Blank Screen or Abnormal Screen

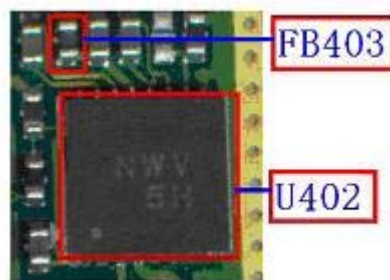
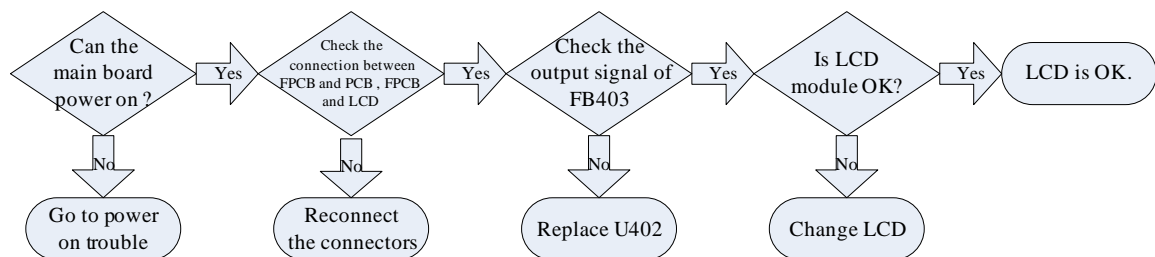


Figure 4-13



### 4.7 Camera Trouble

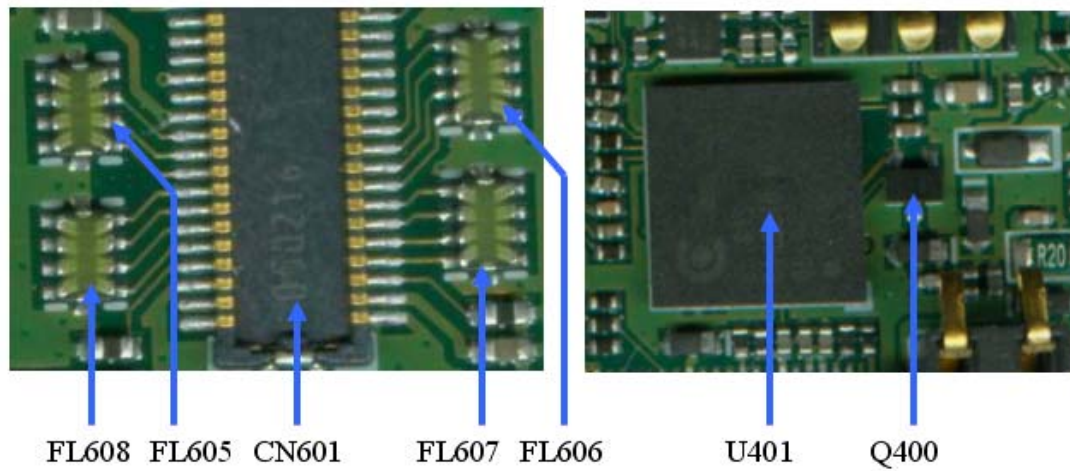
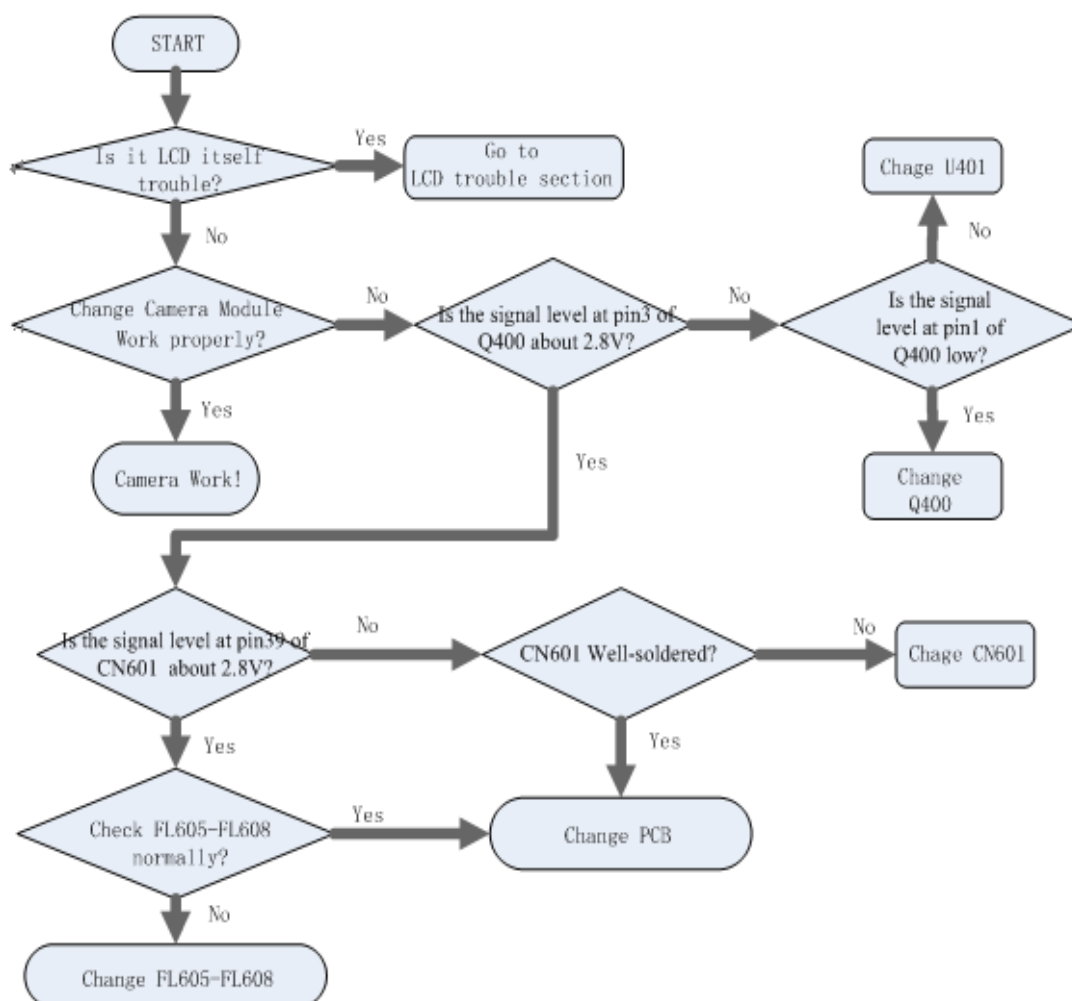


Figure 4-14



4.8 Color LED Trouble

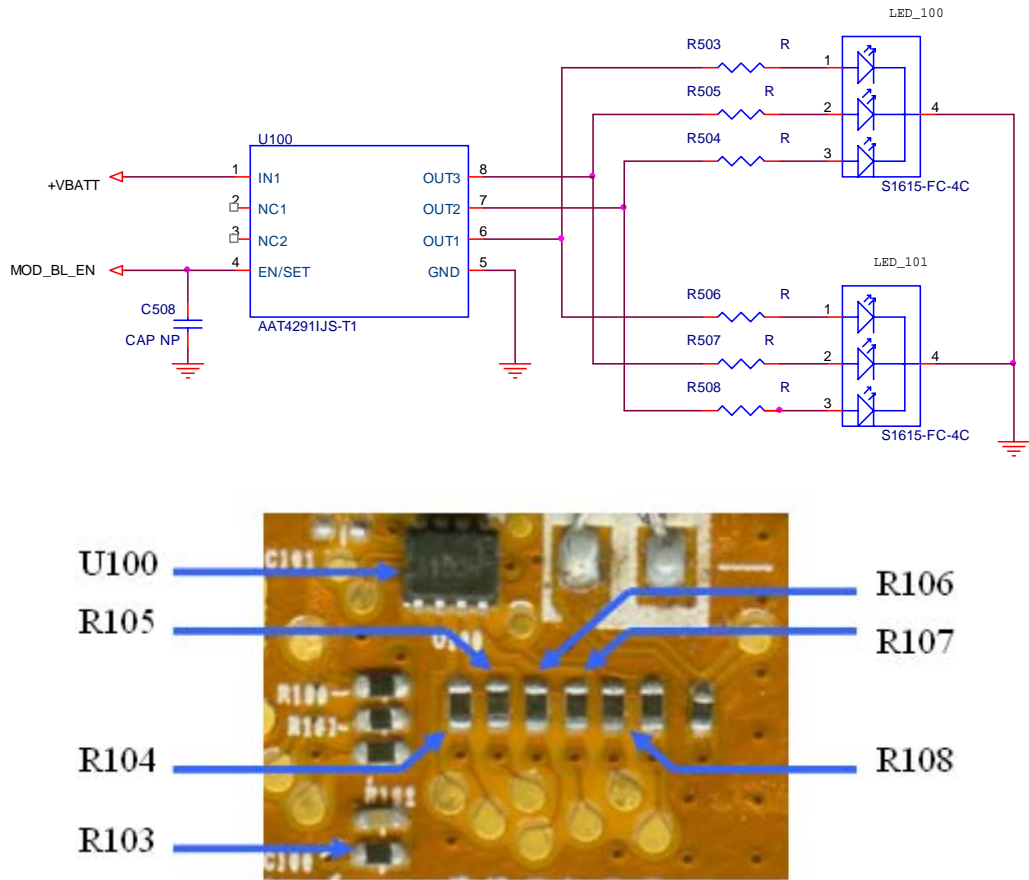
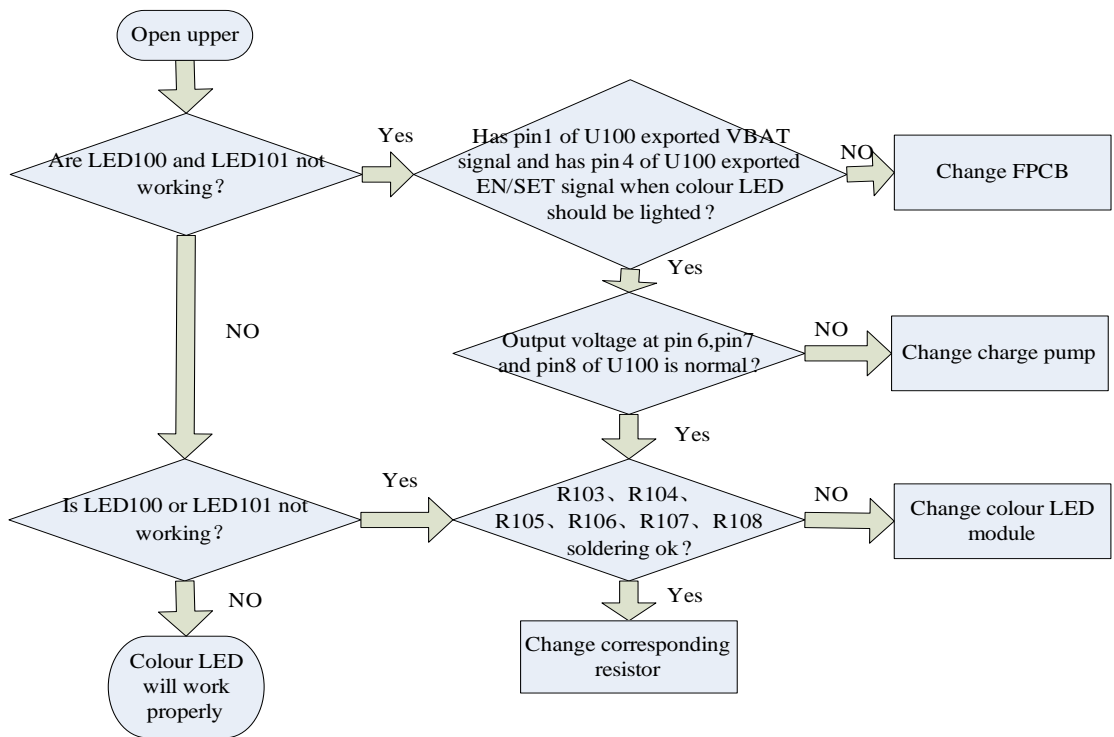


Figure 4-15



## 4.9 KEYPAD Backlight LEDS Trouble

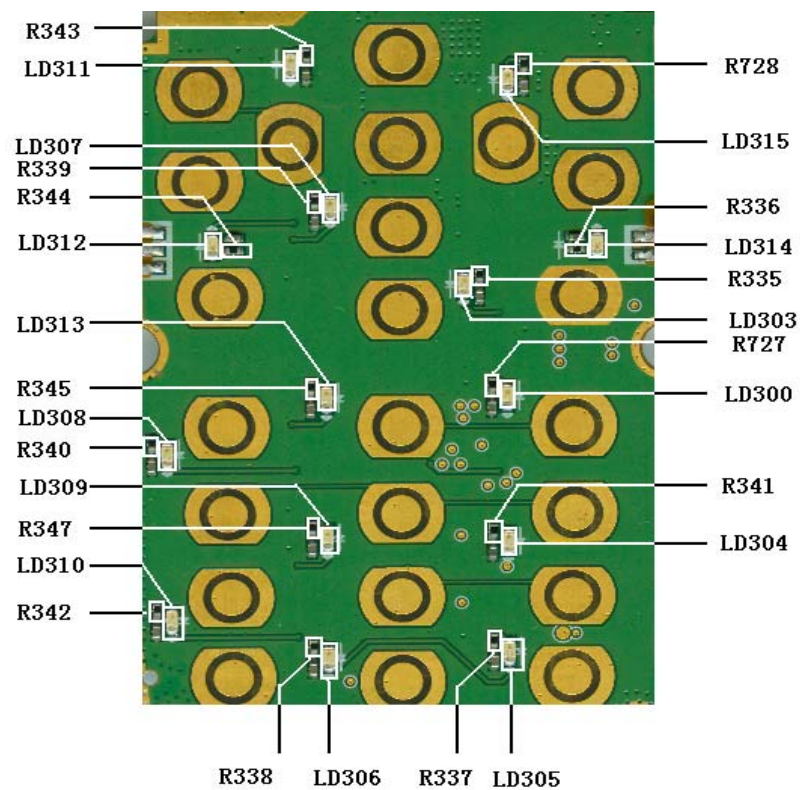
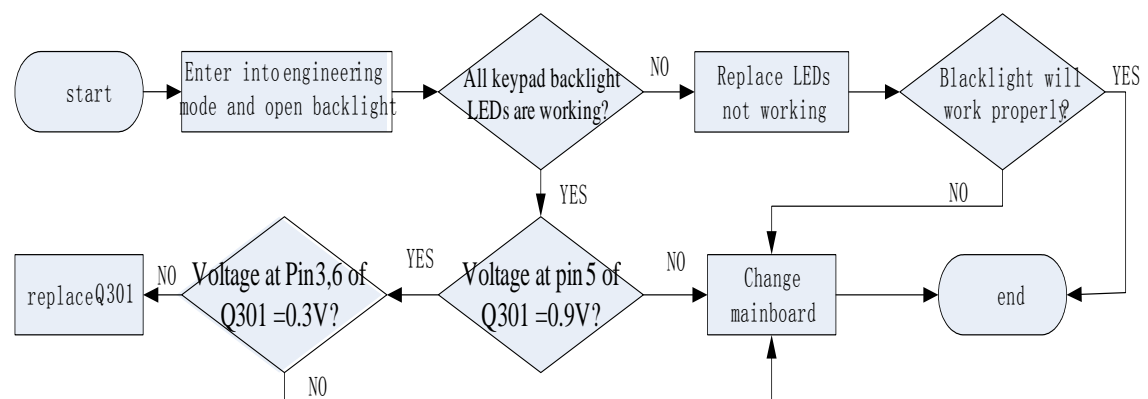


Figure 4-16



## 4.10 SIM Trouble

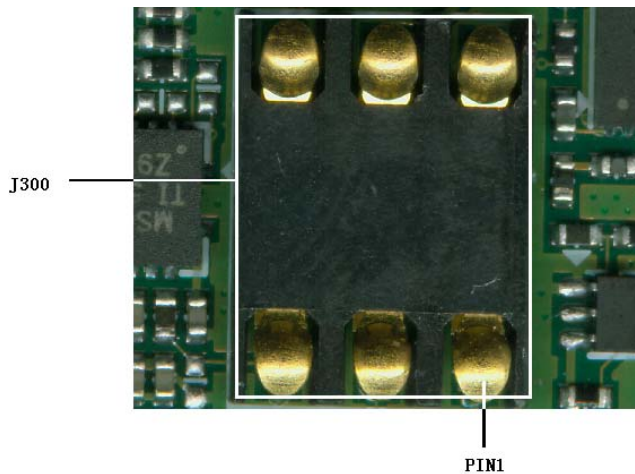
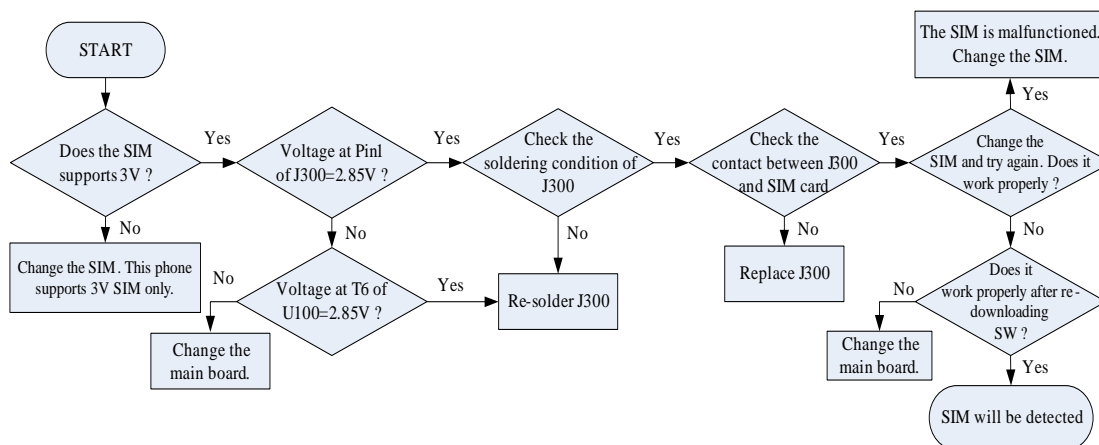


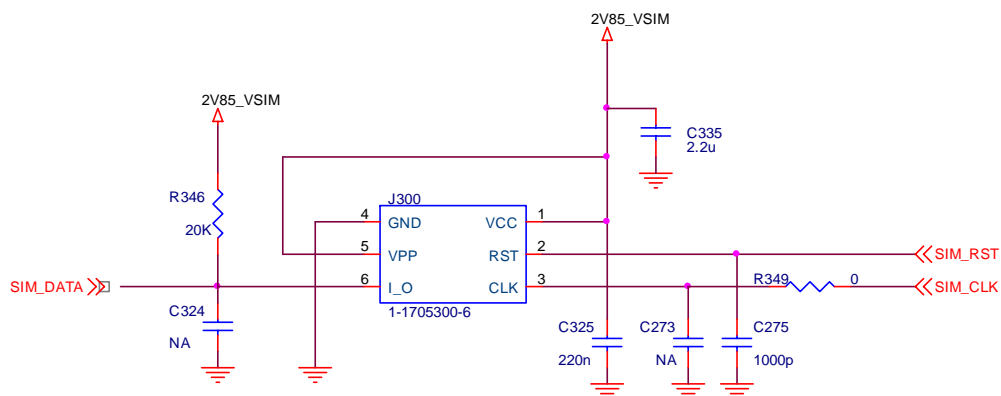
Figure 4-17

### Checking Flow



### Circuit Diagram

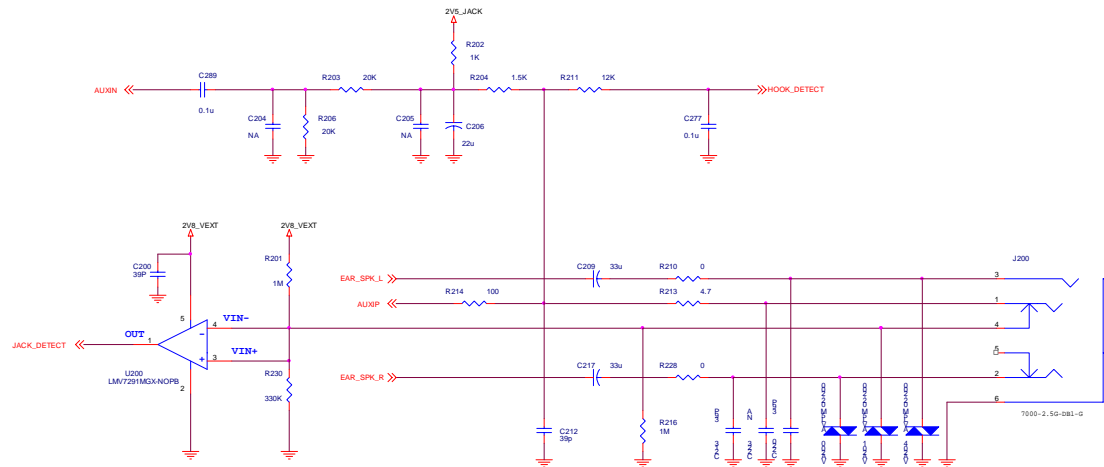
## SIM CONNECTOR





### 4.11 Ear Jack Trouble

#### Circuit Diagram



#### Check Points

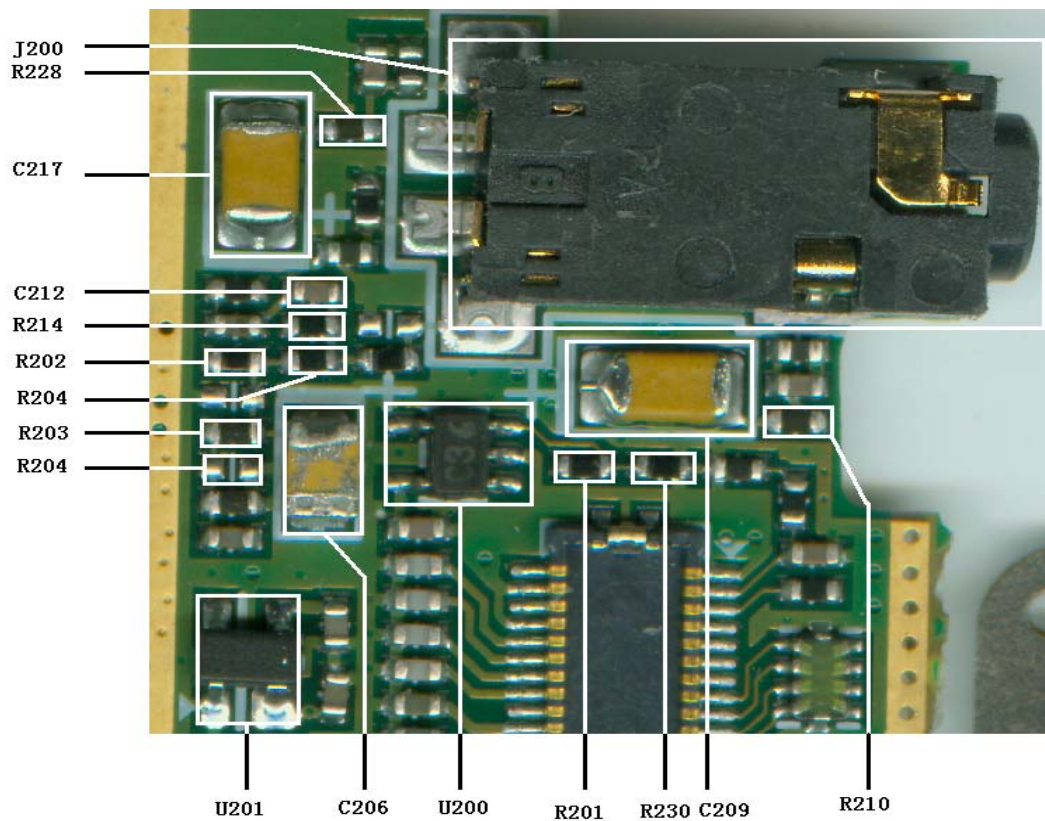
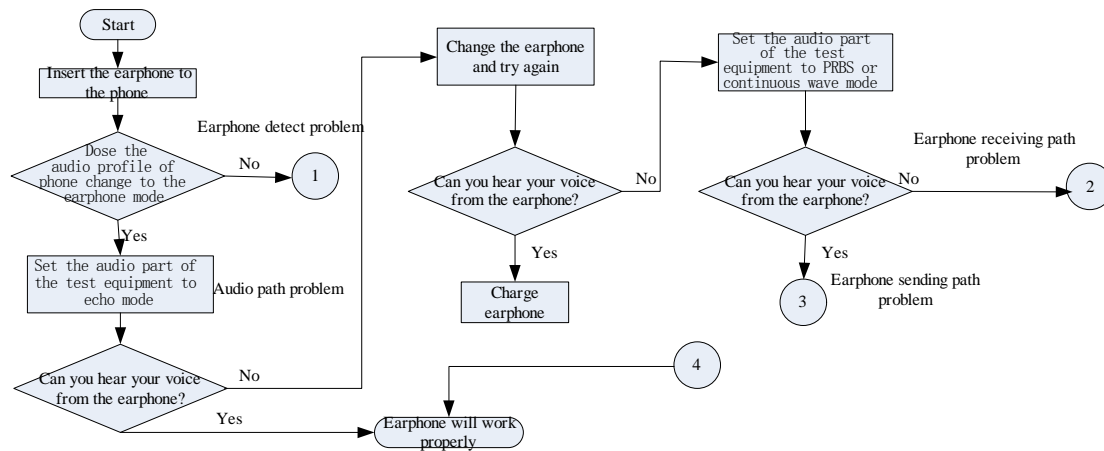
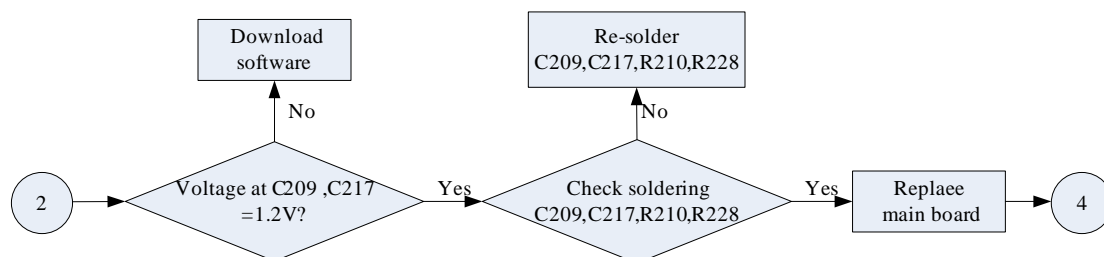


Figure 4-18

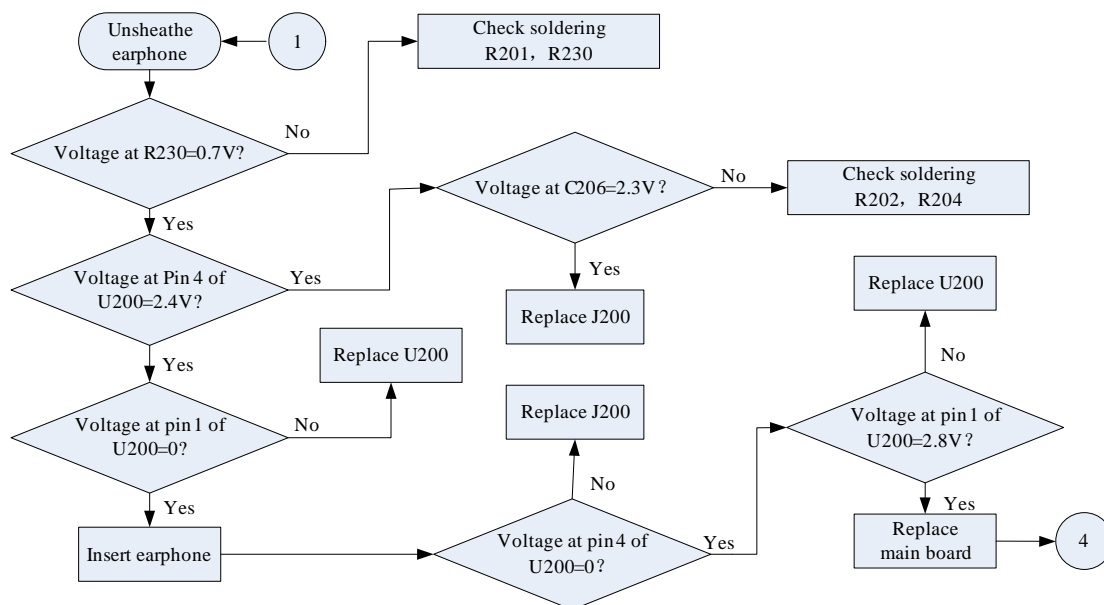
## Check Flow



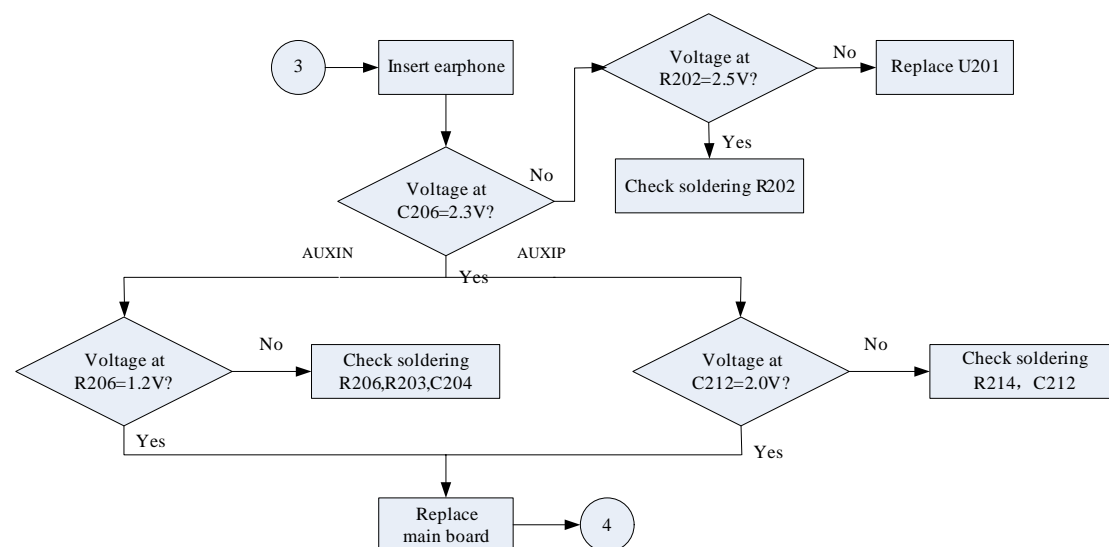
## Earphone receiving path problem



## Earphone detect problem



### Earphone sending path problem



### 4.12 Speaker/Receiver Trouble

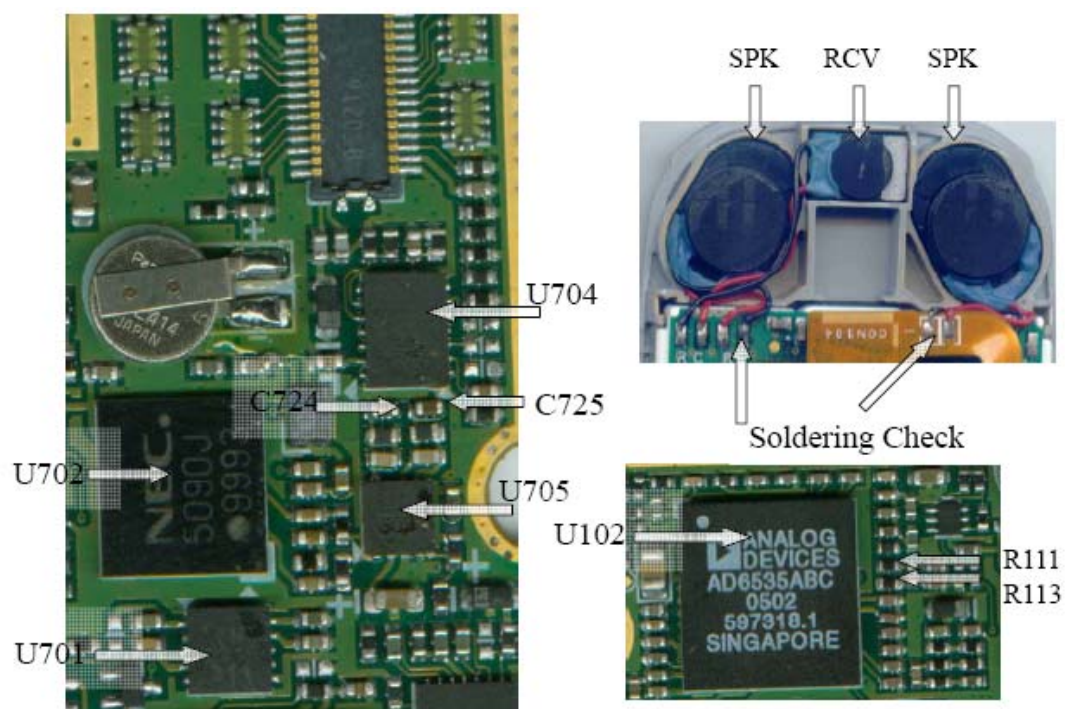
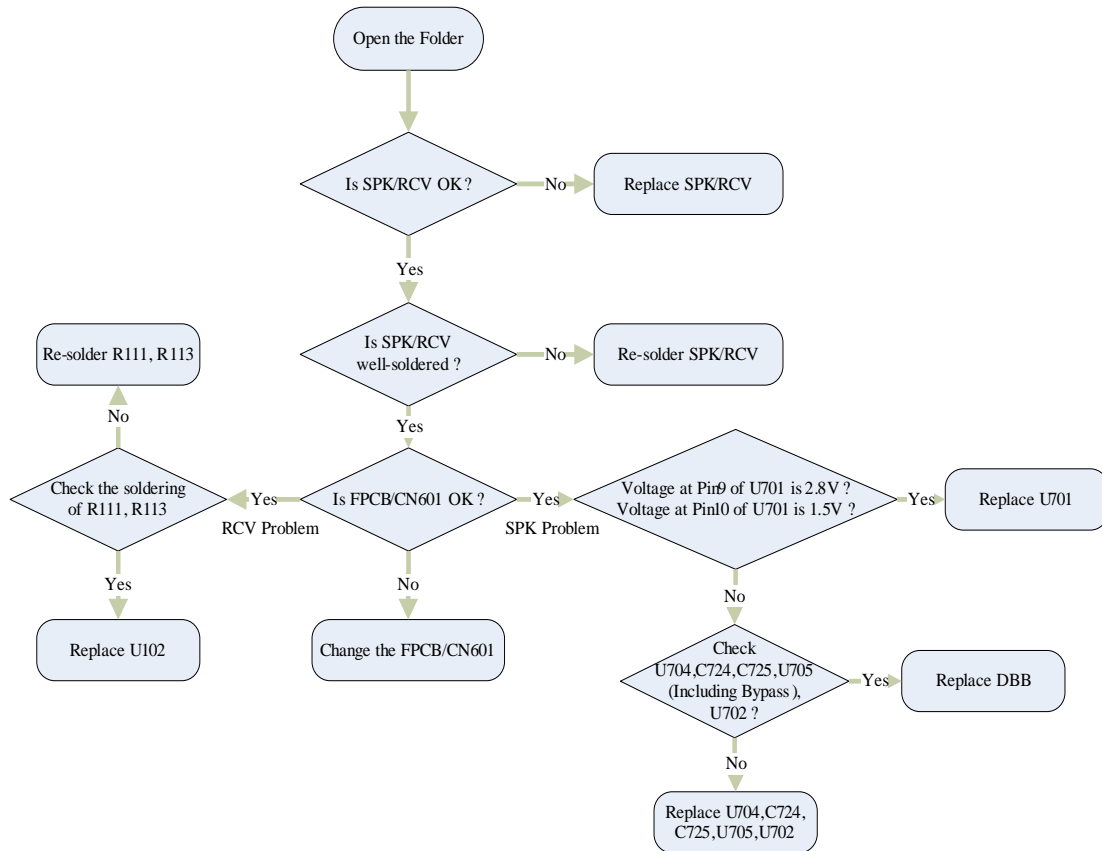


Figure 4-19



## 5. DOWNLOAD AND CALIBRATION

Speedo 2.9 is used for download in LG-C3600. Refer to graph.

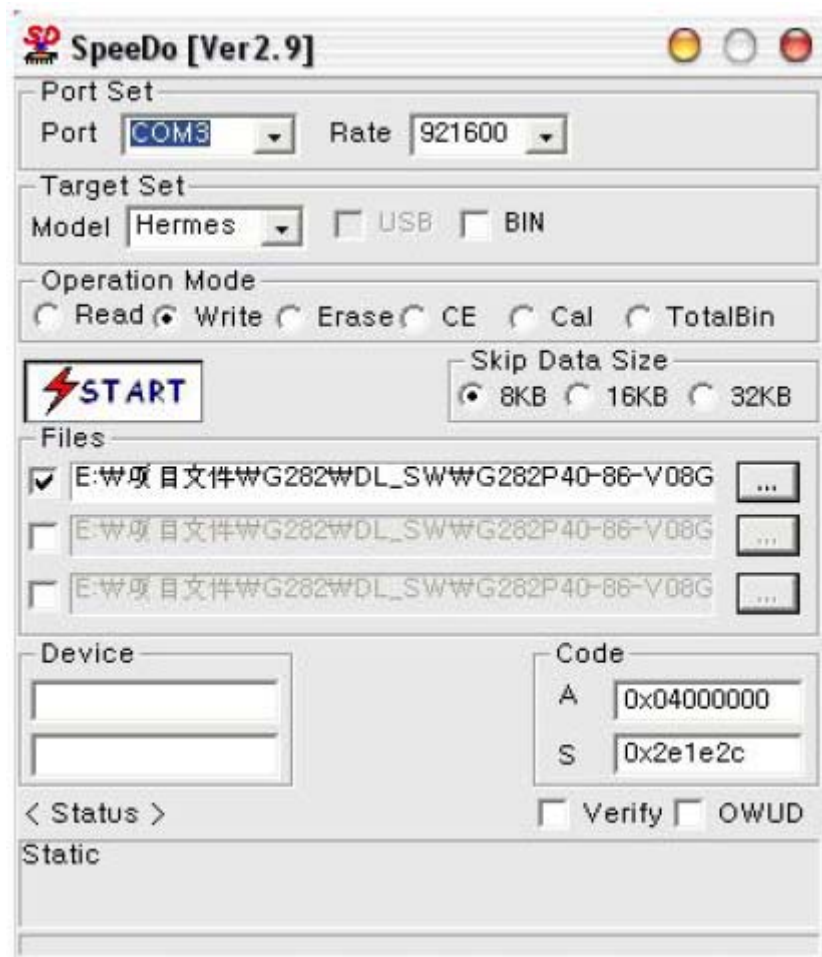
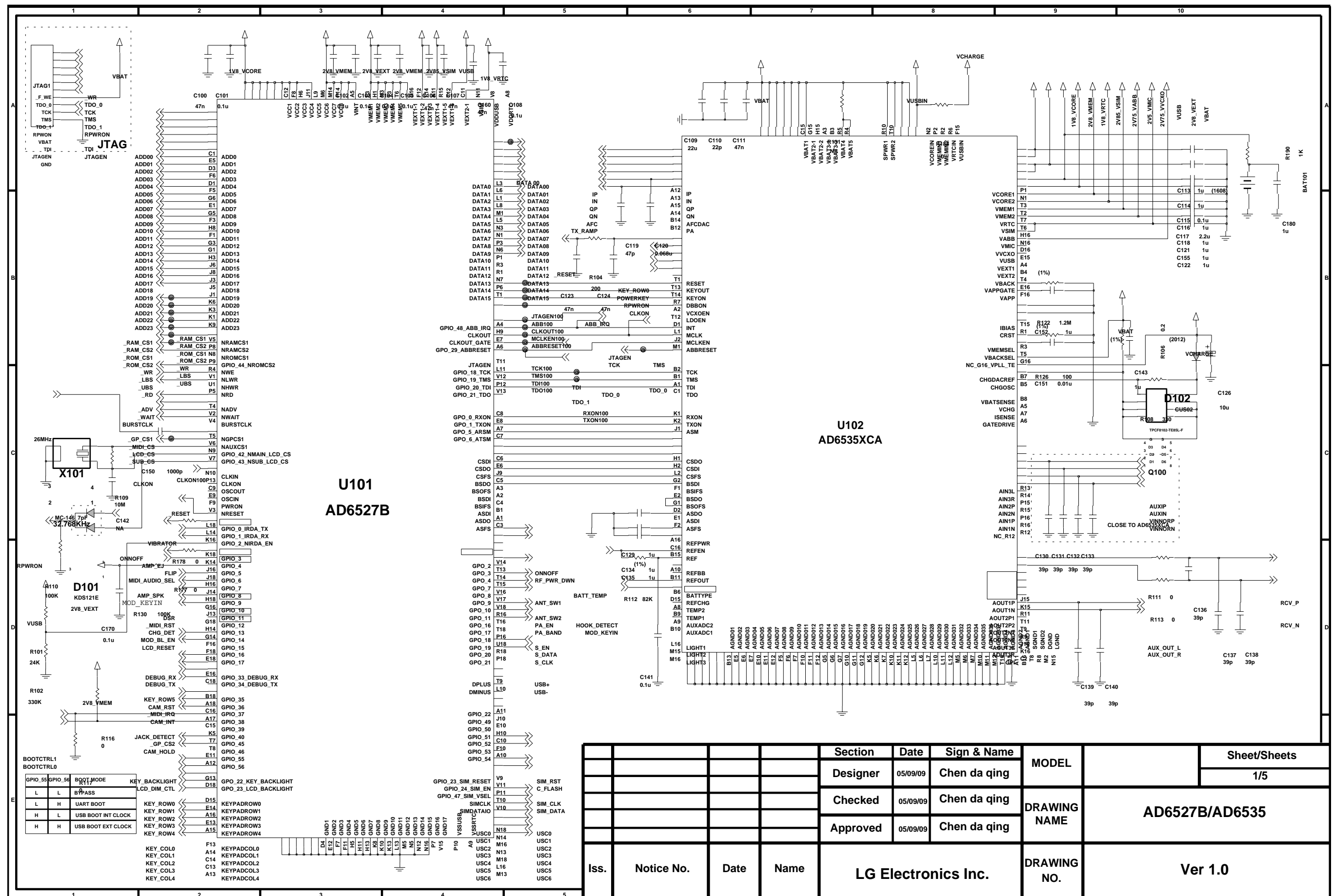


Figure 5-1

Download setup and procedure are the same as LG-G660's.

Calibration procedure is the same as LG-G660's.

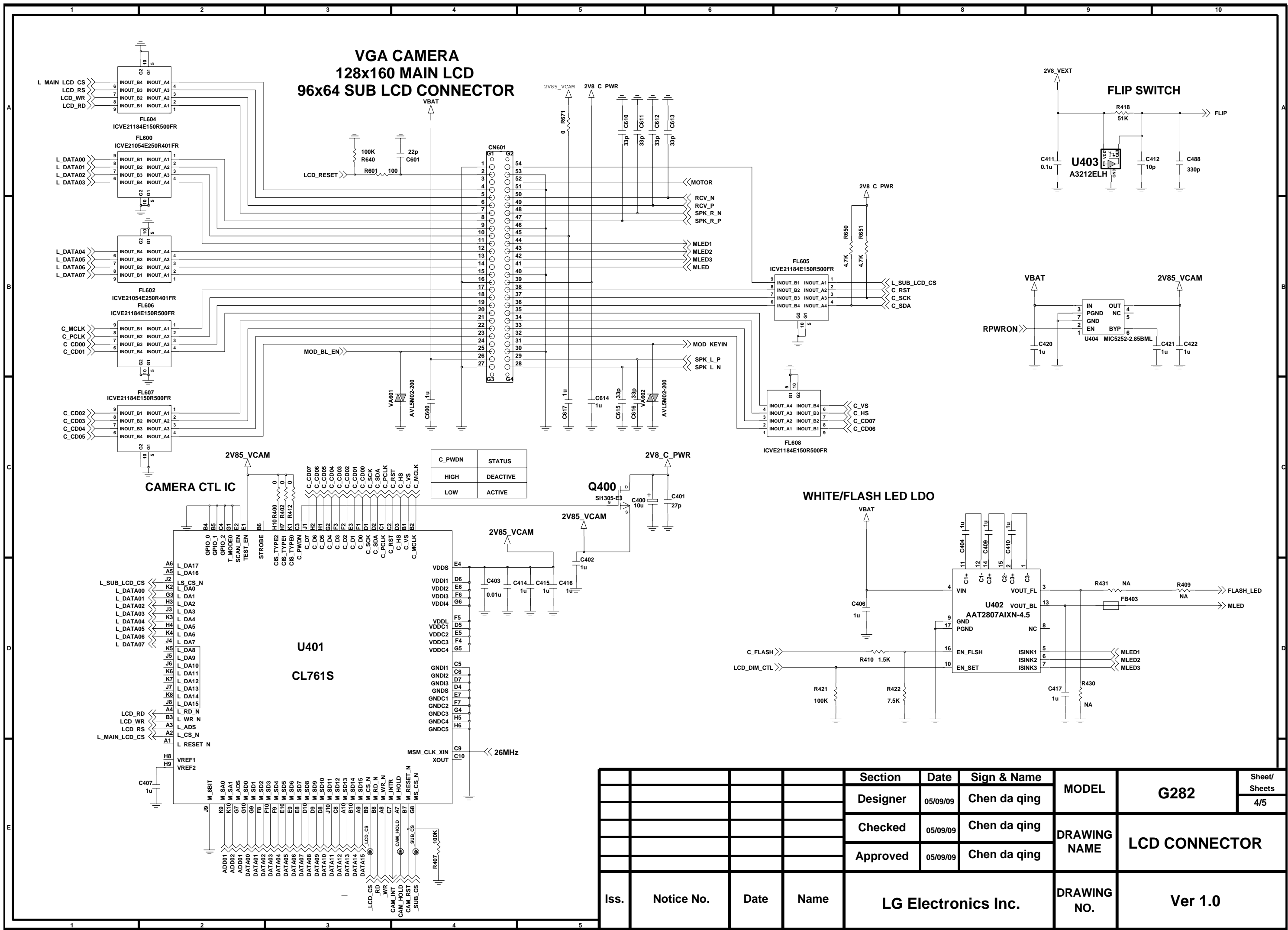
电路图

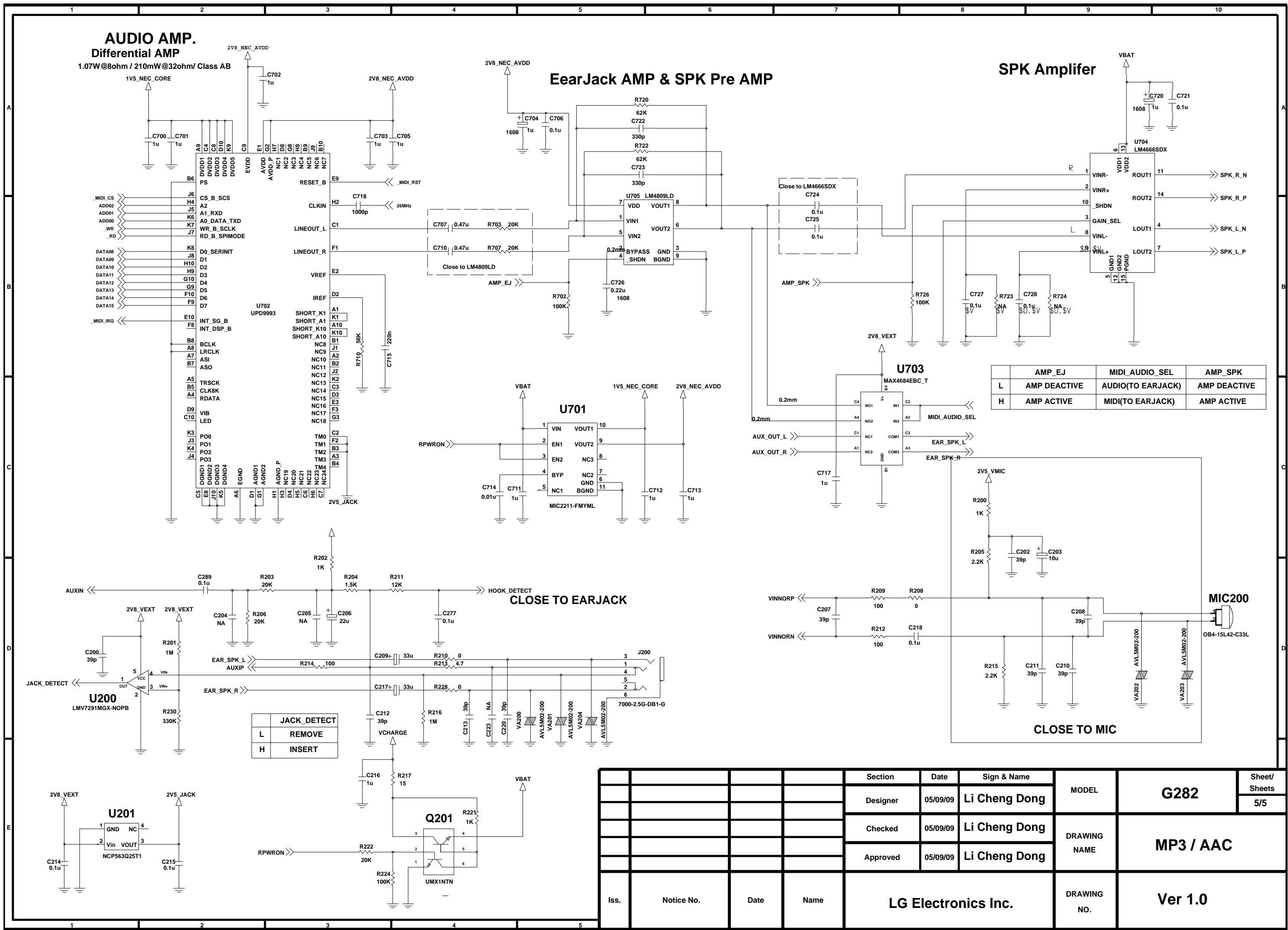


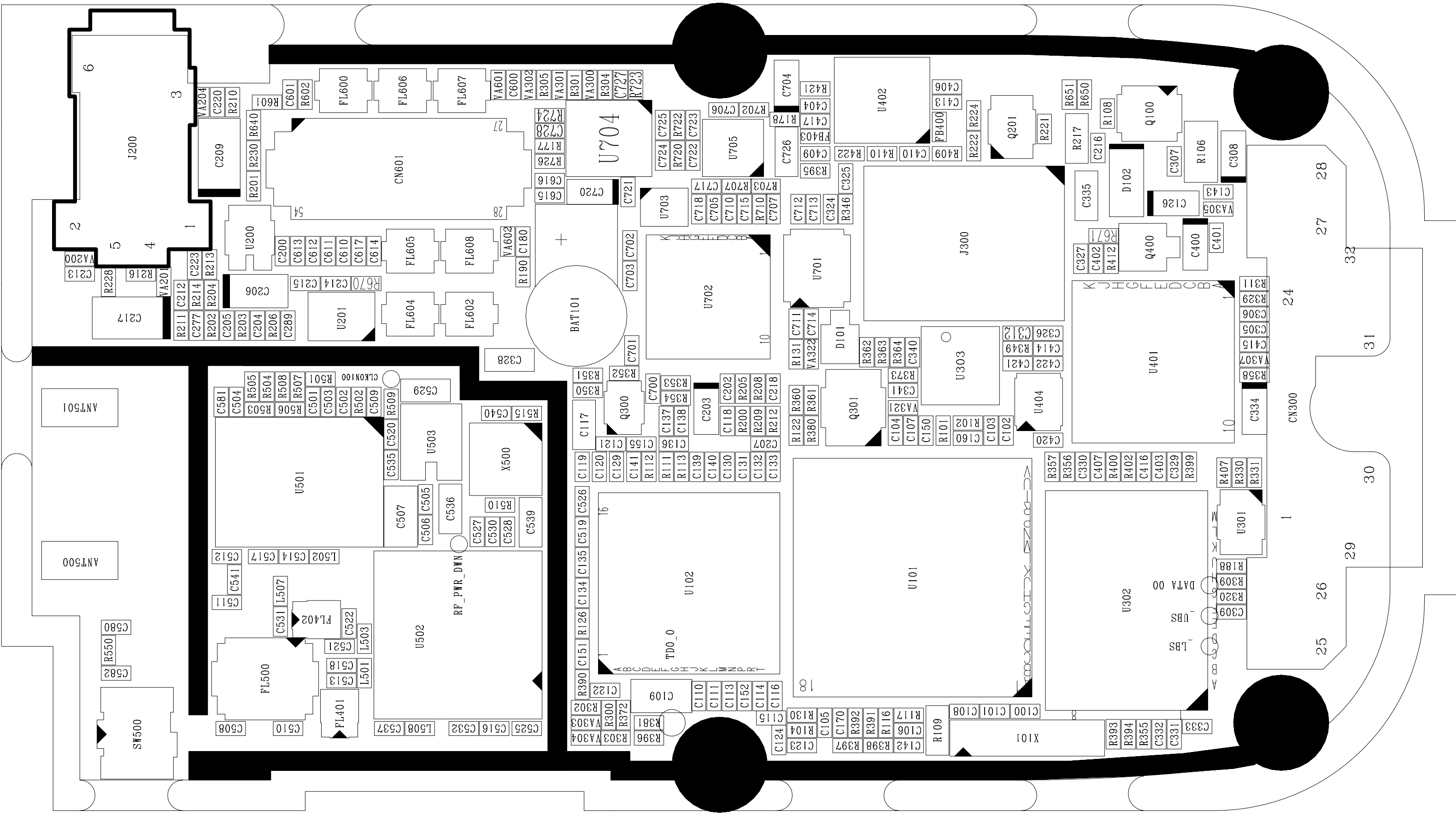


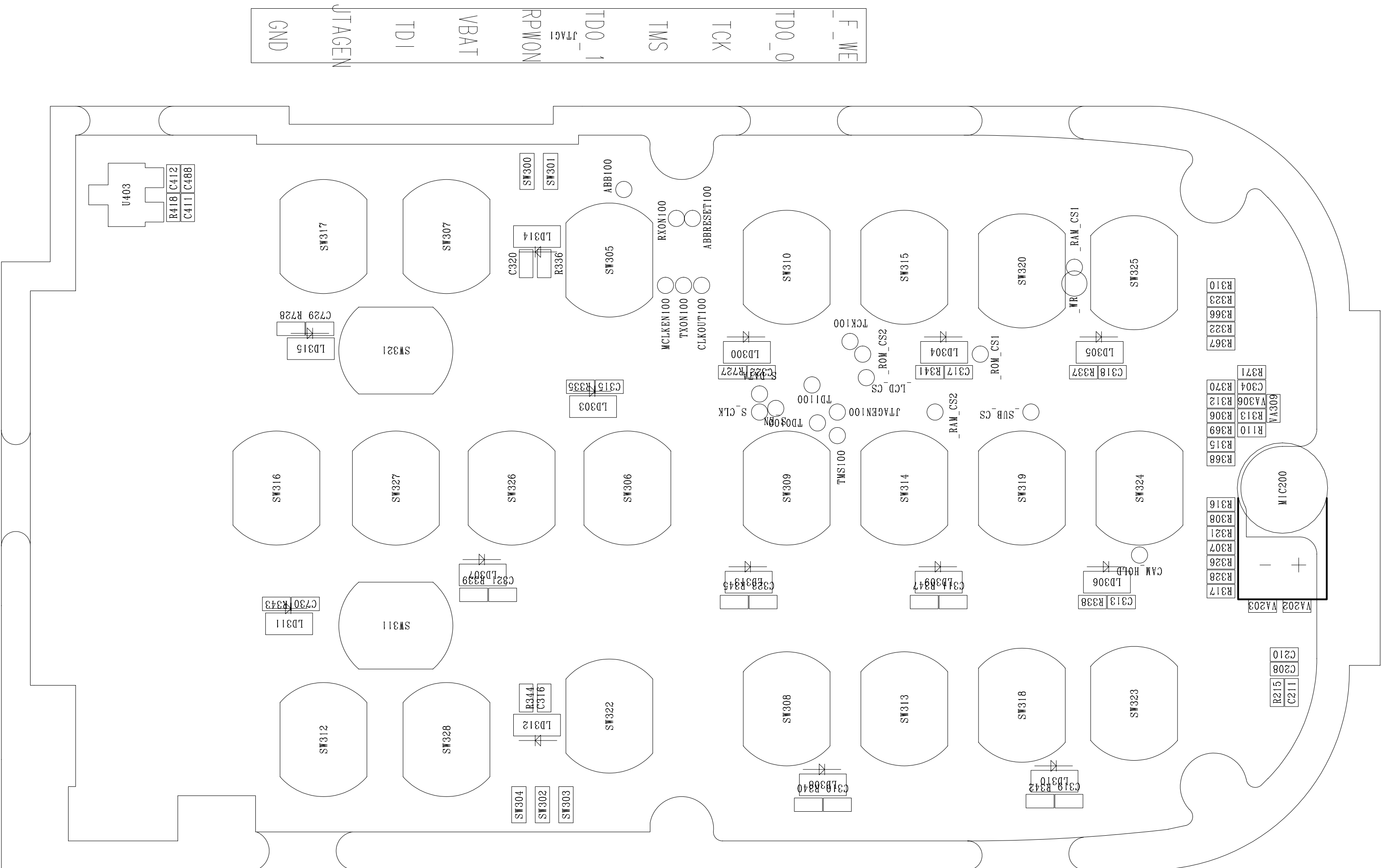


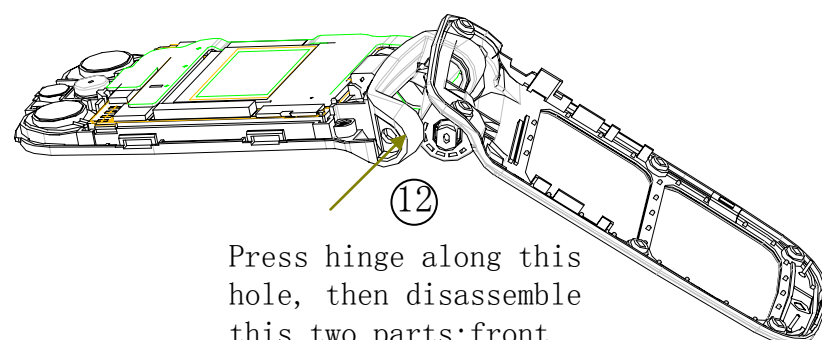
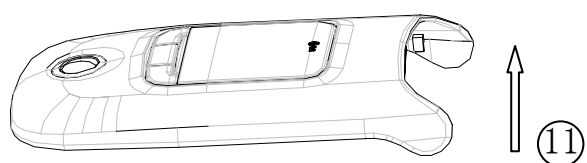
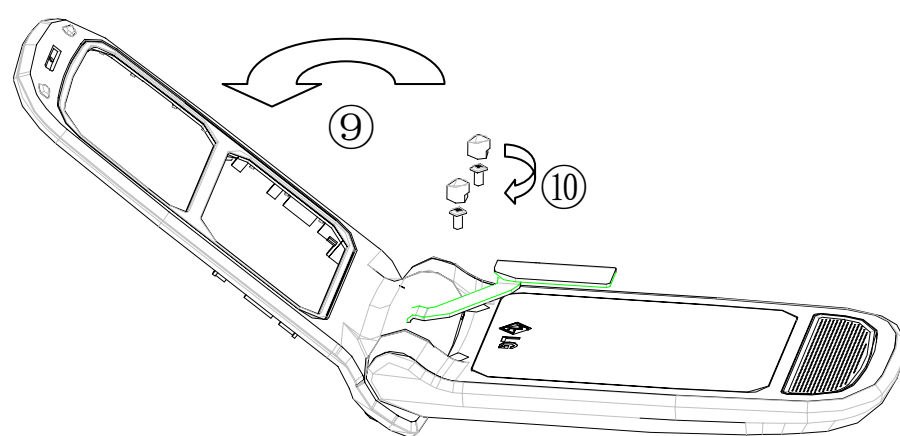
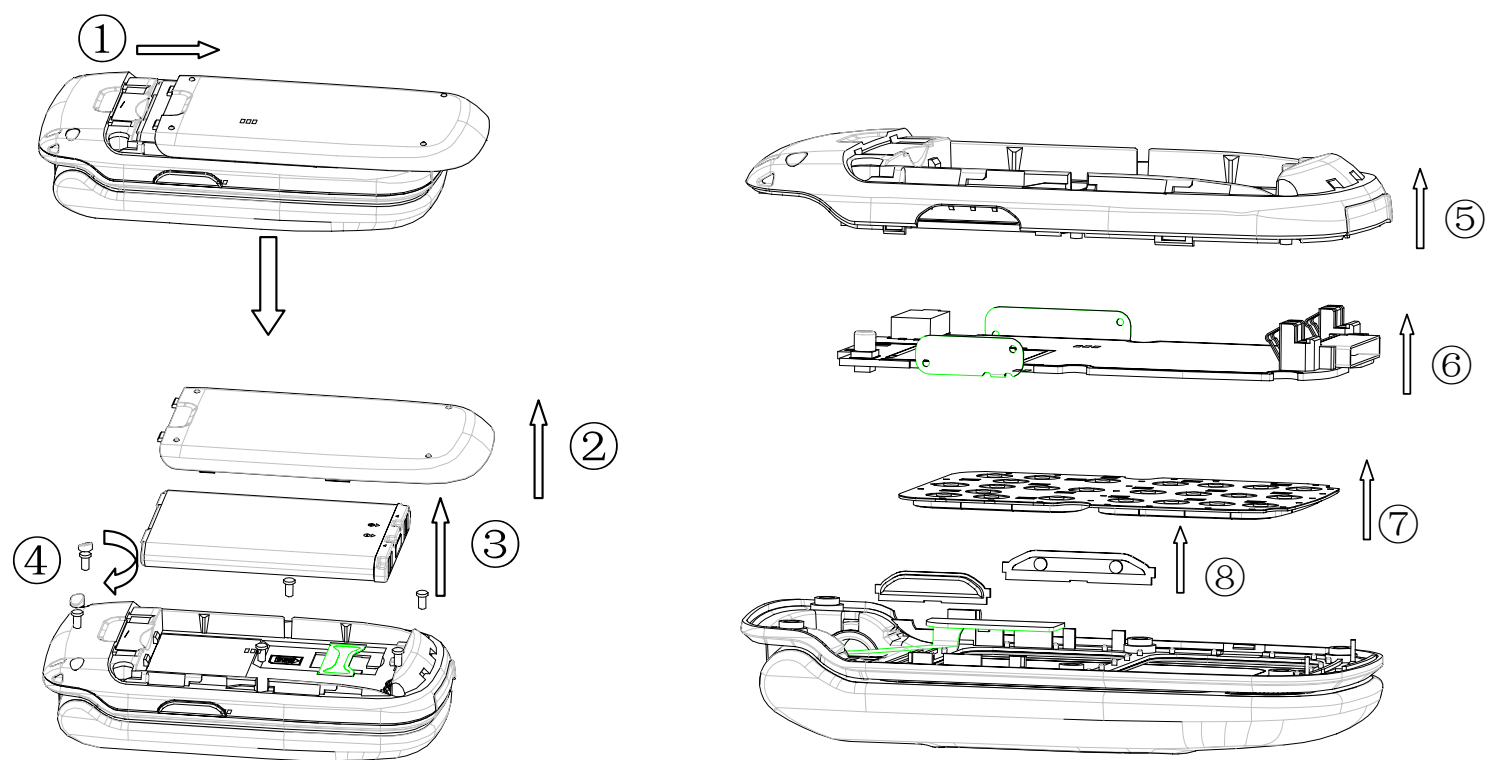




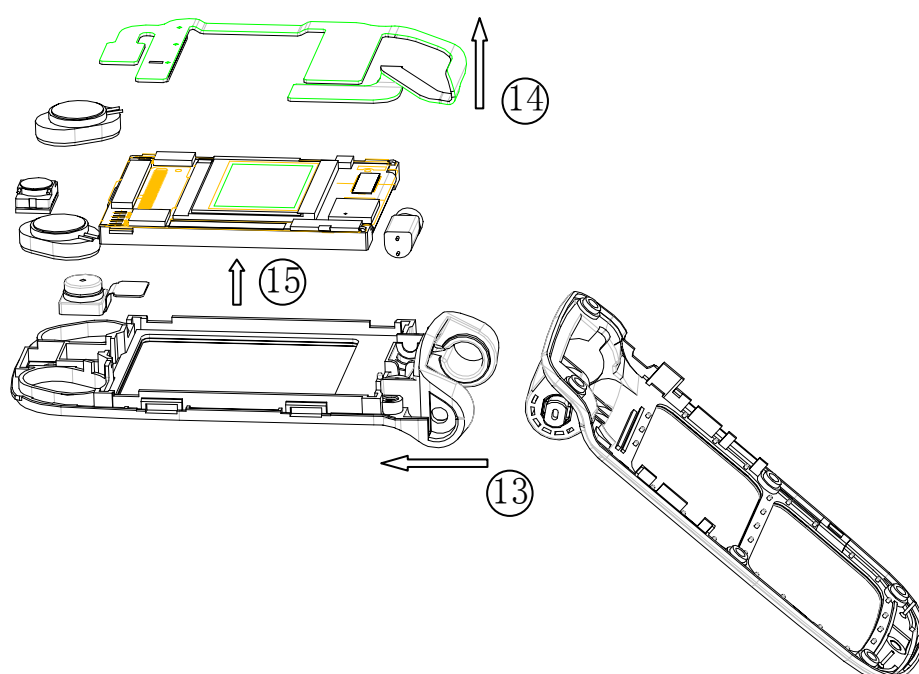








Press hinge along this hole, then disassemble this two parts: front and lower assy



## 6、Change List

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
2	ADCA00	DOVE ASSY,METAL	ADCA0036301		
2	BAT101	BATTERY,CELL,LITHIUM	SBCL0001303	2 V,1 mAh,COIN , SOLDER TYPE BACKUP BATTERY	
3	C100	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C101	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C102	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C103	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C104	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C105	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C106	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C107	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C108	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C109	CAP,CERAMIC,CHIP	ECCH0000393	22 uF,6.3V ,M ,X5R ,HD ,2012 ,R/TP	
3	C110	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP	
3	C111	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C113	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C114	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C115	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C116	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C117	CAP,CERAMIC,CHIP	ECCH0005801	2.2 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C118	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C119	CAP,CERAMIC,CHIP	ECCH0000122	47 pF,50V,J,NP0,TC,1005,R/TP	
3	C120	CAP,CERAMIC,CHIP	ECCH0000165	68 nF,6.3V,K,X5R,HD,1005,R/TP	
3	C121	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C122	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C123	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C124	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C126	CAP,TANTAL,CHIP,MAKER	ECTZ0005201	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP	
3	C129	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C130	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C131	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C132	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C133	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C134	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C135	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	

Level	LocationNO	Description	Part NO	Specification	Color
3	C136	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C137	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C138	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C139	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C140	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C141	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C143	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C150	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP	
3	C151	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C152	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C155	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C160	CAP,CERAMIC,CHIP	ECCH0000163	47 nF,10V,K,X5R,HD,1005,R/TP	
3	C170	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C180	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C200	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C202	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C203	CAP,TANTAL,CHIP,MAKER	ECTZ0005201	10 uF,6.3V ,M ,L _ESR ,1608 ,R/TP	
3	C206	CAP,TANTAL,CHIP,MAKER	ECTZ0003602	22 uF,6.3V ,M ,STD ,2012 ,R/TP	
3	C207	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C208	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C209	CAP,TANTAL,CHIP,MAKER	ECTZ0003101	33 uF,10V ,M ,STD ,ETC ,R/TP	
3	C210	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C211	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C212	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C213	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C214	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C215	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C216	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C217	CAP,TANTAL,CHIP,MAKER	ECTZ0003101	33 uF,10V ,M ,STD ,ETC ,R/TP	
3	C218	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C220	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C277	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C289	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C304	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C305	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C306	CAP,CERAMIC,CHIP	ECCH0000104	3 pF,50V,C,NP0,TC,1005,R/TP	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	C307	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP	
3	C308	CAP,TANTAL,CHIP,MAKER	ECTZ0005201	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP	
3	C309	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C310	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C311	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C312	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C313	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C315	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C316	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C317	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C318	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C319	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C320	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C321	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C322	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C323	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C325	CAP,CERAMIC,CHIP	ECCH0004902	220 nF,10V ,Z ,Y5V ,TC ,1005 ,R/TP	
3	C327	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP	
3	C328	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C329	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C330	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C331	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C332	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C333	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C334	CAP,TANTAL,CHIP,MAKER	ECTZ0005201	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP	
3	C335	CAP,CERAMIC,CHIP	ECCH0005801	2.2 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C340	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C341	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C400	CAP,TANTAL,CHIP,MAKER	ECTZ0005201	10 uF,6.3V ,M ,L_ESR ,1608 ,R/TP	
3	C401	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C402	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C403	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C404	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C406	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C407	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C409	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	



Level	LocationNO	Description	Part NO	Specification	Color
3	C410	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C411	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C412	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP	
3	C414	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C415	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C416	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C417	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C420	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C421	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C422	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C488	CAP,CERAMIC,CHIP	ECCH0000137	330 pF,50V ,K ,X7R ,HD ,1005 ,R/TP	
3	C501	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C502	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C503	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C504	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C505	CAP,CERAMIC,CHIP	ECCH0000113	18 pF,50V,J,NP0,TC,1005,R/TP	
3	C506	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C507	CAP,CERAMIC,CHIP	ECCH0000393	22 uF,6.3V ,M ,X5R ,HD ,2012 ,R/TP	
3	C508	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP	
3	C509	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C510	CAP,CERAMIC,CHIP	ECCH0000117	27 pF,50V,J,NP0,TC,1005,R/TP	
3	C512	CAP,CERAMIC,CHIP	ECCH0000101	.5 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP	
3	C513	CAP,CERAMIC,CHIP	ECCH0000102	1 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP	
3	C514	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP	
3	C516	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP	
3	C518	CAP,CERAMIC,CHIP	ECCH0000102	1 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP	
3	C519	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C520	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C521	CAP,CERAMIC,CHIP	ECCH0000102	1 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP	
3	C522	CAP,CERAMIC,CHIP	ECCH0000102	1 pF,50V ,C ,NP0 ,TC ,1005 ,R/TP	
3	C525	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP	
3	C526	CAP,CERAMIC,CHIP	ECCH0000120	39 pF,50V,J,NP0,TC,1005,R/TP	
3	C527	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP	
3	C528	CAP,CERAMIC,CHIP	ECCH0000128	100 pF,50V,J,NP0,TC,1005,R/TP	
3	C529	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C530	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	C531	CAP,CERAMIC,CHIP	ECCH0000110	10 pF,50V,D,NP0,TC,1005,R/TP	
3	C532	CAP,CERAMIC,CHIP	ECCH0000128	100 pF,50V,J,NP0,TC,1005,R/TP	
3	C535	CAP,CERAMIC,CHIP	ECCH0000179	22 nF,16V ,K ,X5R ,HD ,1005 ,R/TP	
3	C536	CAP,CERAMIC,CHIP	ECCH0006201	4.7 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C537	CAP,CERAMIC,CHIP	ECCH0000171	3.3 pF,16V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C539	CAP,CERAMIC,CHIP	ECCH0005801	2.2 uF,6.3V ,K ,X5R ,TC ,1608 ,R/TP	
3	C540	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C541	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C581	CAP,CERAMIC,CHIP	ECCH0000111	12 pF,50V,J,NP0,TC,1005,R/TP	
3	C600	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C601	CAP,CERAMIC,CHIP	ECCH0000115	22 pF,50V,J,NP0,TC,1005,R/TP	
3	C610	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C611	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C612	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C613	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C614	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C615	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C616	CAP,CERAMIC,CHIP	ECCH0000186	33 pF,50V ,J ,NP0 ,TC ,1005 ,R/TP	
3	C617	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C700	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C701	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C702	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C703	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C704	CAP,TANTAL,CHIP	ECTH0002101	1 uF,16V ,M ,STD ,1608 ,R/TP	
3	C705	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C706	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C707	CAP,CHIP,MAKER	ECZH0001210	470 nF,10V ,Z ,Y5V ,HD ,1005 ,R/TP	
3	C710	CAP,CHIP,MAKER	ECZH0001210	470 nF,10V ,Z ,Y5V ,HD ,1005 ,R/TP	
3	C711	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C712	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C713	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C714	CAP,CERAMIC,CHIP	ECCH0000155	10 nF,16V,K,X7R,HD,1005,R/TP	
3	C715	CAP,CERAMIC,CHIP	ECCH0004902	220 nF,10V ,Z ,Y5V ,TC ,1005 ,R/TP	
3	C717	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C718	CAP,CERAMIC,CHIP	ECCH0000143	1 nF,50V,K,X7R,HD,1005,R/TP	
3	C720	CAP,TANTAL,CHIP	ECTH0002101	1 uF,16V ,M ,STD ,1608 ,R/TP	

Level	LocationNO	Description	Part NO	Specification	Color
3	C721	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C722	CAP,CERAMIC,CHIP	ECCH0000137	330 pF,50V ,K ,X7R ,HD ,1005 ,R/TP	
3	C723	CAP,CERAMIC,CHIP	ECCH0000137	330 pF,50V ,K ,X7R ,HD ,1005 ,R/TP	
3	C724	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C725	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C726	CAP,CERAMIC,CHIP	ECCH0000280	0.22 uF,10V ,K ,X7R ,HD ,1608 ,R/TP	
3	C727	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C728	CAP,CERAMIC,CHIP	ECCH0000167	0.1 uF,6.3V,K,X5R,HD,1005,R/TP	
3	C729	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	C730	CAP,CERAMIC,CHIP	ECCH0004904	1 uF,6.3V ,K ,X5R ,TC ,1005 ,R/TP	
3	CN300	CONNECTOR,I/O	ENRY0003501	24 PIN,0.5 mm,ANGLE , ,	
3	CN601	CONNECTOR, BOARD TO BOARD	ENBY0023601	54 PIN,0.4 mm,ETC , ,H=0.9, Header	
3	D101	DIODE,SWITCHING	EDSY0005701	EMT3 ,80 V,4 A,R/TP ,	
3	D102	DIODE,SWITCHING	EDSY0012101	US-FLAT ,30 V,1 A,R/TP ,2.5*1.25*0.6(t)	
3	FB403	FILTER,BEAD,CHIP	SFBH0007102	10 ohm,1005 ,Ferrite Bead	
3	FL401	FILTER,SAW	SFSY0021301	942.5 MHz,2.0*1.4*0.68 ,SMD ,	
3	FL402	FILTER,SAW	SFSY0021302	1842.5 MHz,2.0*1.4*0.68 ,SMD ,	
3	FL500	FILTER,SEPERATOR	SFAY0003702	900 ,1800 ,1.3 dB,1.5 dB,30 dB,25 dB, 4532 ,Antenna switch	
3	FL600	FILTER,EMI/POWER	SFEY0007102	SMD ,5.6 V,SMD ,4ch. R-Varistor Array (400Ohm,25pF)	
3	FL602	FILTER,EMI/POWER	SFEY0007102	SMD ,5.6 V,SMD ,4ch. R-Varistor Array (400Ohm,25pF)	
3	FL604	FILTER,EMI/POWER	SFEY0007103	SMD ,18 V, ,SMD ,4ch. R-Varistor Array (50Ohm,15pF), Pb-free	
3	FL605	FILTER,EMI/POWER	SFEY0007103	SMD ,18 V, ,SMD ,4ch. R-Varistor Array (50Ohm,15pF), Pb-free	
3	FL606	FILTER,EMI/POWER	SFEY0007103	SMD ,18 V, ,SMD ,4ch. R-Varistor Array (50Ohm,15pF), Pb-free	
3	FL607	FILTER,EMI/POWER	SFEY0007103	SMD ,18 V, ,SMD ,4ch. R-Varistor Array (50Ohm,15pF), Pb-free	
3	FL608	FILTER,EMI/POWER	SFEY0007103	SMD ,18 V, ,SMD ,4ch. R-Varistor Array (50Ohm,15pF), Pb-free	
3	J200	CONN,JACK/PLUG, EARPHONE	ENJE0004301	4 ,4 PIN,Dip	
3	J300	CONN,SOCKET	ENSY0001602	6 PIN,ETC ,5 IRECTIONAL ,2.54 mm,K(GC200)	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	L501	INDUCTOR,CHIP	ELCH0005005	27 nH,J ,1005 ,R/TP ,	
3	L503	INDUCTOR,CHIP	ELCH0005015	6.8 nH,S ,1005 ,R/TP ,	
3	L507	INDUCTOR,CHIP	ELCH0005006	33 nH,J ,1005 ,R/TP ,	
3	L508	INDUCTOR,CHIP	ELCH0005006	33 nH,J ,1005 ,R/TP ,	
3	LD300	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD303	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD304	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD305	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD306	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD307	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD308	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD309	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD310	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD311	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD312	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD313	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD314	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
3	LD315	DIODE,LED,CHIP	EDLH0006001	Blue ,1608 ,R/TP ,Blue SMD LED	
2	MGAD00	GASKET,SHIELD FORM	MGAD0099701	LG-G282 Main PCB 0.25t	Silver
2	MIDZ00	INSULATOR	MIDZ0072601	PE 0.05t LG-G282 MPCB	Color Unfixed
2	MLAB00	LABEL,A/S	MLAB0000601	HUMIDITY STICKER	Without Color
2	MLAC00	LABEL,BARCODE	MLAC0003301	EZ LOOKS(use for PCB ASSY MAIN(hardware))	Without Color
2	MPBH00	PAD,MIKE	MPBH0017701	RECEPTACLE	Black
3	Q100	TR,FET,P-CHANNEL	EQFP0004201	2.9*1.9*0.8(t) ,.7 W,20 V,-6 A,R/TP , NDC652P upgrade(substitution) item, Pb free	
3	Q201	TR,BJT,ARRAY	EQBA0000406	SC-70 ,0.2 W,R/TP ,CDMA,Common use	
3	Q300	TR,BJT,ARRAY	EQBA0002701	EMT6 ,150 mW,R/TP ,NPN, PNP, 150 mA	
3	Q301	TR,BJT,NPN	EQBN0004801	SMT6 ,0.2 W,R/TP ,	
3	Q400	TR,FET,P-CHANNEL	EQFP0004501	SOT-323 ,.29 W,1.8 V,.86 A,R/TP , P-Chanel MOSFET, Pb free	
3	R101	RES,CHIP	ERHY0000267	24K ohm,1/16W,J,1005,R/TP	
3	R102	RES,CHIP	ERHY0000291	330K ohm,1/16W,J,1005,R/TP	
3	R104	RES,CHIP	ERHY0000225	200 ohm,1/16W,J,1005,R/TP	
3	R106	RES,CHIP	ERHY0001102	0.2 ohm,1/4W ,F ,2012 ,R/TP	

Level	LocationNO	Description	Part NO	Specification	Color
3	R108	RES,CHIP	ERHY0000230	330 ohm,1/16W,J,1005,R/TP	
3	R109	RES,CHIP	ERHY0000512	10M ohm,1/16W,J,1608,R/TP	
3	R110	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R111	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R112	RES,CHIP	ERHY0000152	82K ohm,1/16W,F,1005,R/TP	
3	R113	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R116	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R117	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R122	RES,CHIP	ERHY0010201	1.2 Mohm,1/16W ,F ,1005 ,R/TP	
3	R126	RES,CHIP	ERHY0000106	100 ohm,1/16W,F,1005,R/TP	
3	R130	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R177	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R178	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R188	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R190	RES,CHIP	ERHY0000241	1K ohm,1/16W,J,1005,R/TP	
3	R200	RES,CHIP	ERHY0000241	1K ohm,1/16W,J,1005,R/TP	
3	R201	RES,CHIP	ERHY0000296	1M ohm,1/16W,J,1005,R/TP	
3	R202	RES,CHIP	ERHY0000241	1K ohm,1/16W,J,1005,R/TP	
3	R203	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R204	RES,CHIP	ERHY0000244	1.5K ohm,1/16W,J,1005,R/TP	
3	R205	RES,CHIP	ERHY0000247	2.2K ohm,1/16W,J,1005,R/TP	
3	R206	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R208	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R209	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R210	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R211	RES,CHIP	ERHY0000262	12K ohm,1/16W,J,1005,R/TP	
3	R212	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R213	RES,CHIP	ERHY0000202	4.7 ohm,1/16W,J,1005,R/TP	
3	R214	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R215	RES,CHIP	ERHY0000247	2.2K ohm,1/16W,J,1005,R/TP	
3	R216	RES,CHIP	ERHY0000296	1M ohm,1/16W,J,1005,R/TP	
3	R217	RES,CHIP	ERHY0000407	15 ohm,1/16W,J,1608,R/TP	
3	R221	RES,CHIP	ERHY0000241	1K ohm,1/16W,J,1005,R/TP	
3	R222	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R224	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R228	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	R230	RES,CHIP	ERHY0000291	330K ohm,1/16W,J,1005,R/TP	
3	R300	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R301	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R302	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R303	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R304	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R305	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R306	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R307	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R308	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R309	RES,CHIP	ERHY0000262	12K ohm,1/16W,J,1005,R/TP	
3	R310	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R311	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R312	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R313	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R315	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R316	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R317	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R320	RES,CHIP	ERHY0000262	12K ohm,1/16W,J,1005,R/TP	
3	R321	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R322	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R323	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R326	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R328	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R329	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R330	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R331	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R335	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R336	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R337	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R338	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R339	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R340	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R341	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R342	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R343	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	

Level	LocationNO	Description	Part NO	Specification	Color
3	R344	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R345	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R346	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R347	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R349	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R350	RES,CHIP	ERHY0000207	20 ohm,1/16W,J,1005,R/TP	
3	R351	RES,CHIP	ERHY0000273	47K ohm,1/16W,J,1005,R/TP	
3	R352	RES,CHIP	ERHY0000226	220 ohm,1/16W,J,1005,R/TP	
3	R353	RES,CHIP	ERHY0000244	1.5K ohm,1/16W,J,1005,R/TP	
3	R354	RES,CHIP	ERHY0000258	7.5K ohm,1/16W,J,1005,R/TP	
3	R355	RES,CHIP	ERHY0000229	300 ohm,1/16W,J,1005,R/TP	
3	R356	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R357	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R358	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R360	RES,CHIP	ERHY0000203	10 ohm,1/16W,J,1005,R/TP	
3	R361	RES,CHIP	ERHY0000203	10 ohm,1/16W,J,1005,R/TP	
3	R362	RES,CHIP	ERHY0000203	10 ohm,1/16W,J,1005,R/TP	
3	R363	RES,CHIP	ERHY0000203	10 ohm,1/16W,J,1005,R/TP	
3	R364	RES,CHIP	ERHY0000262	12K ohm,1/16W,J,1005,R/TP	
3	R372	RES,CHIP	ERHY0000261	10K ohm,1/16W,J,1005,R/TP	
3	R373	RES,CHIP	ERHY0000262	12K ohm,1/16W,J,1005,R/TP	
3	R380	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R381	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R390	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R391	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R392	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R393	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R394	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R395	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R396	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R397	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R398	RES,CHIP	ERHY0000237	680 ohm,1/16W,J,1005,R/TP	
3	R399	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R400	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R402	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R407	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	R410	RES,CHIP	ERHY0000244	1.5K ohm,1/16W,J,1005,R/TP	
3	R412	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R418	RES,CHIP	ERHY0000274	51K ohm,1/16W,J,1005,R/TP	
3	R421	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R422	RES,CHIP	ERHY0000258	7.5K ohm,1/16W,J,1005,R/TP	
3	R501	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R502	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R503	RES,CHIP,MAKER	ERHZ0000469	36 ohm,1/16W ,J ,1005 ,R/TP	
3	R504	RES,CHIP	ERHY0000223	150 ohm,1/16W,J,1005,R/TP	
3	R505	RES,CHIP	ERHY0000223	150 ohm,1/16W,J,1005,R/TP	
3	R506	RES,CHIP	ERHY0000210	30 ohm,1/16W,J,1005,R/TP	
3	R507	RES,CHIP	ERHY0000224	180 ohm,1/16W,J,1005,R/TP	
3	R508	RES,CHIP	ERHY0000224	180 ohm,1/16W,J,1005,R/TP	
3	R509	RES,CHIP	ERHY0000241	1K ohm,1/16W,J,1005,R/TP	
3	R510	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R515	RES,CHIP	ERHY0000261	10K ohm,1/16W,J,1005,R/TP	
3	R550	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R601	RES,CHIP	ERHY0000220	100 ohm,1/16W,J,1005,R/TP	
3	R640	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R650	RES,CHIP	ERHY0000254	4.7K ohm,1/16W,J,1005,R/TP	
3	R651	RES,CHIP	ERHY0000254	4.7K ohm,1/16W,J,1005,R/TP	
3	R671	RES,CHIP	ERHY0000201	0 ohm,1/16W,J,1005,R/TP	
3	R702	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R703	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R707	RES,CHIP	ERHY0000265	20K ohm,1/16W,J,1005,R/TP	
3	R710	RES,CHIP	ERHY0000275	56K ohm,1/16W,J,1005,R/TP	
3	R720	RES,CHIP	ERHY0000148	62K ohm,1/16W,F,1005,R/TP	
3	R722	RES,CHIP	ERHY0000148	62K ohm,1/16W,F,1005,R/TP	
3	R726	RES,CHIP	ERHY0000280	100K ohm,1/16W,J,1005,R/TP	
3	R727	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
3	R728	RES,CHIP	ERHY0000213	47 ohm,1/16W,J,1005,R/TP	
1	SAFB00	PCB ASSY,MAIN,INSERT	SAFB0051901		
2	SAFC00	PCB ASSY,MAIN, SMT BOTTOM	SAFC0064701		
2	SAFD00	PCB ASSY,MAIN,SMT TOP	SAFD0063501		
1	SAFF00	PCB ASSY,MAIN,SMT	SAFF0072501		



Level	LocationNO	Description	Part NO	Specification	Color
2	SPFY00	PCB,MAIN	SPFY0119101	FR-4 ,1.0 mm,MULTI-8 ,	
2	SPKY00	PCB,SIDEKEY	SPKY0025401	POLYI ,0.2mm,DOUBLE ,UPDOWN	
2	SPKY01	PCB,SIDEKEY	SPKY0025501	POLYI ,0.2mm,DOUBLE ,CAMERA	
2	SUMY00	MICROPHONE	SUMY0003811	FPCB , -42 dB,4*1.5T ,0.8T PORON	
3	SW500	CONN,RF SWITCH	ENWY0003301	,SMD ,0.4 dB,	
3	U101	IC	EUSY0251701	BGA ,204 PIN,R/TP , Digital BaseBand Hermes+USB, Pb Free	
3	U102	IC	EUSY0181601	BGA ,148 PIN,R/TP , GSM ANALOG BASEBAND, Pb Free	
3	U200	IC	EUSY0077701	SC70-5 ,5 PIN,R/TP ,1.8V Low Voltage Comparator with Rail-to-Rail Input, Pb Free	
3	U201	IC	EUSY0204801	SC82-AB (SC70-4) ,4 PIN,R/TP ,80mACMOS LOW IQ LDO VOLTAGE REGULATOR / 2.5V	
3	U301	DIODE,TVS	EDTY0006501	SC70-6L ,5.25 V,100 W,R/TP ,	
3	U302	IC	EUSY0228401	SCSP ,88 PIN,R/TP ,512/128Mb (flash+PSRAM), I/O:3.0V, 8x11x1.4 ,SCSP	
3	U303	IC	EUSY0277801	QFN ,14 PIN,R/TP , Quad 2-input AND GATE, Pb Free	
3	U401	IC	EUSY0232601		
3	U402	IC	EUSY0245401	DFN ,16 PIN,R/TP ,Main 3 LEDs(60mA) + Flash (300mA) Charge pump	
3	U403	IC	EUSY0129501	SC-74A ,3 PIN,R/TP , HALL-EFFECT SWITCH, Pb Free	
3	U404	IC	EUSY0184802	MLF ,6 PIN,R/TP ,150mA / 2.85V High PSRR u-Cap LDO Regulator,PBFFREE	
3	U501	PAM	SMPY0007201	35 dBm,53 %,0.8 A,-50 dBc, 50 dB,6.0*8.0*1.2 ,SMD ,QUAD	
3	U502	IC	EUSY0161301	8x8 LGA ,28 PIN,R/TP ,	
3	U503	IC	EUSY0118602	SOT23 ,5 PIN,R/TP ,2.85V/150mA Low Noise uCap LDO Regulator, PBFFREE	
3	U701	IC	EUSY0154407	MLF ,10 PIN,R/TP ,Dual(1.5V/150mA, 2.8V/300mA) LDO Regulator,PBFFREE	
3	U702	IC	EUSY0221901	BGA ,85 PIN,R/TP ,Midi 64poly & AAC & MP3 Decoder	
3	U703	IC	EUSY0119002	4X3 UCSP / CODE : B12-4 ,10 PIN,R/TP , DUAL SPDT ANALOG SWITCHES(Pb Free)	
3	U704	IC	EUSY0217601	LLP ,14 PIN,R/TP ,Filterless Higt Efficiency 1.3W Switching Audio Amplifier	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
3	VA200	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA201	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA202	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA203	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA204	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA300	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA301	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA302	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA303	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA304	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA305	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA306	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA307	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA309	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA321	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA322	VARISTOR	SEVY0000702	14 V,10% ,SMD ,	
3	VA601	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
3	VA602	RES,VARIABLE,ETC	ERVZ0000101	ohm, PIN, ,SMD ,R/TP , 1005 SIZE CHIP VARISTOR, Pb Free	
2	WSYY00	SOFTWARE	WSYY0309401	G282P40-86-V08f-XXX-XX Aug 26 2005	
3	X101	X-TAL	EXXY0015601	.032768 MHz,20 PPM,7 pF, 65000 ohm,SMD ,6.9*1.4*1.3 ,	
3	X500	VCTCXO	EXSK0005002	26 MHz,1 PPM,10 pF,SMD ,3.2*2.5*1.1 ,	

## 6、Change List

Level	LocationNO	Description	Part NO	Specification	Color
1		GSM(FOLDER)	TGFF0082602		Silver
2	AAAY00	ADDITION	AAAY0102502	LG-G282 CHNSV	Silver
3	AMBA00	MANUAL ASSY,OPERATION	AMBA0066901	LG-G282 CHNSV	Without Color
3	MCHZ00	COMPACT DISK	MCHZ0005801	PC Sync	Without Color
3	SBPL00	BATTERY PACK,LI-ION	SBPL0077804	3.7 V,1000 mAh,1 CELL,PRISMATIC , CHNGE Battery(CHN Label), Pb-Free	Without Color
3	WSAY00	SOFTWARE,APPLICATION	WSAY0033401		
2	ABEZ00	BOX ASSY	ABEZ0059903	BOX ASSY(for LG-G282 CHN)	Without Color
3	MBEF00	BOX,UNIT	MBEF0096603	BOX,UNIT(LG-G282)	색상없음
2	APEY00	PHONE	APEY0218302	LG-G282 CHNSV	Silver
3	ACGG00	COVER ASSY,FOLDER	ACGG0061102	LG-G282 CHNSV	Silver
4	SACY00	PCB ASSY,FLEXIBLE	SACY0034502		
5	SACE00	PCB ASSY,FLEXIBLE,SMT	SACE0030302		
3	ACGM00	COVER ASSY,REAR	ACGM0063101	LG-G282 CHNSV	Silver
4	MCJN00	COVER,REAR	MCJN0044801	LG-G282 CHNSV	Silver
4	MLEE00	LOCKER,CARD READER	MLEE0000601	LG-G282 CHNSV	Without Color
3	MKAZ00	KEYPAD	MKAZ0023702	LG-G282 CHNSV	은색
3	MLAK00	LABEL,MODEL	MLAK0014701	LG-G252 CHNSV	Silver
3	SAFY00	PCB ASSY,MAIN	SAFY0149501		
4	SAFB00	PCB ASSY,MAIN,INSERT	SAFB0051901		
5	MGAD00	GASKET,SHIELD FORM	MGAD0099701	LG-G282 Main PCB 0.25t	Silver
5	MIDZ00	INSULATOR	MIDZ0072601	PE 0.05t LG-G282 MPCB	Color Unfixed
4	SAFF00	PCB ASSY,MAIN,SMT	SAFF0072501		
5	SAFC00	PCB ASSY,MAIN,SMT BOTTOM	SAFC0064701		
5	SAFD00	PCB ASSY,MAIN,SMT TOP	SAFD0063501		
5	SPFY00	PCB,MAIN	SPFY0119101	FR-4 ,1.0 mm,MULTI-8 ,	
3	SNGF00	ANTENNA,GSM,FIXED	SNGF0011101	3.8 ,-2.5 dBd, ,Internal, Dual (EGSM+DCS1800), Pb-Free	